

Study of mutagenic Effects of Propylene Glycol Alginate (71-18)

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STUDY OF MUTAGENIC EFFECTS OF PROPYLENE
GLYCOL ALGINATE (71-18)

#9

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Compound Report No. 9

STUDY OF MUTAGENIC EFFECTS OF PROPYLENE GLYCOL ALGINATE (71-18)

Prepared for:

DHEW/PUBLIC HEALTH SERVICE
Food and Drug Administration
Rockville, Maryland

Contract No. FDA 71-267

SRI Project LSU-1346

Submitted by:

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Approved:

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INTRODUCTION

Under contract to the Food and Drug Administration, Stanford Research Institute is examining the mutagenicity of 14 selected chemical compounds (Contract No. FDA 71-267). This report describes the results of tests conducted on Propylene Glycol Alginate (71-18).

Three methods are used to evaluate the genetic hazards of the test compounds. These are: (1) Host-Mediated Assay, (2) Cytogenetic Assay, and (3) Dominant Lethal Gene Test. Methodologies used to conduct these tests are described in detail in "Compound Report No. 1," January 1972. The same procedures were followed in obtaining the information presented in this report.

For the compound under consideration here single and repeated intubations were performed at three concentrations. These amounts were (1) a maximum tolerated dose or 5 g/kg, whichever was lower, (2) a low dose of 30 mg/kg or one near the use level, and (3) a level intermediate between the use level and the maximum tolerated dose.

SUMMARY

Host-Mediated Assay

Propylene glycol alginate (71-18) did not produce any measureable mutagenic response or alteration in the recombination frequency for Saccharomyces cerevisiae in the host-mediated assay. No mutagenic response was demonstrated in the in vitro tests on Salmonella typhimurium but an increased mitotic recombination frequency was observed when S. cerevisiae was exposed to 1% (w/v) propylene glycol alginate.

Cytogenetic Assay

Propylene glycol alginate (71-18) exhibits no adverse effect on either metaphase chromosomes from rat bone marrow or anaphase chromosomes from in vitro cultures of WI-38 (human embryonic lung) cells at any of the dose levels or time periods tested.

Dominant Lethal Gene Test

No consistent responses occurred to suggest that Propylene Glycol Alginate (71-18) is mutagenic to the rat as a result of this experimental procedure. The positive reference compound, TEM, a known mutagen, generally produced mutagenic responses from the first through the fifth weeks of the experiment, as expected. Statistical treatment of the Dominant Lethal Gene data according to the program outlined by FDA failed to show consistent significant differences which could be attributed to an effect of Propylene glycol alginate.

RESULTS AND DISCUSSION

Oral Toxicity

Single and multiple dose toxicity data are presented in Table 1. Propylene Glycol Alginate (71-18) given orally as a suspension in corn oil at a dose of 10 g/kg of body weight caused no deaths. No effects, except transient depression of the rats for a few hours following dosing, were evident. When given daily at a dose of 5 g/kg for five days to other male rats, no unusual or adverse effects were observed.

Host-Mediated Assay

Table 2 presents a summary of the host-mediated assay results for propylene glycol alginate (71-18). Table 3 contains the data obtained on each individual mouse. This table is a computer printout of the calculations made on the data obtained for each mouse. Because of the nature of the computer, it is necessary to exceed its maximum number of significant figures to obtain a value as an exponent. For this reason, 12 significant figures are printed out. However, only three significant figures are used for calculations and reporting the results as summarized in Table 2. Table 4 summarizes the data obtained in the in vitro tests.

As can be seen from the results summarized in Table 2, no mutagenic response was observed for the two Salmonella typhimurium strains tested when mice were treated with the test compound. The mitotic recombination frequency of Saccharomyces cerevisiae was not affected. No mutagenic response was detected in the in vitro tests for S. typhimurium as shown in Table 4. However, an increased mitotic recombination frequency was shown for S. cerevisiae exposed to 1% (w/v) of the test compound. At this concentration a survival percentage of 4.77 was obtained.

Cytogenetic Assay

Review of Table 5 indicates that no adverse effect on rat bone marrow chromosomes at any tested dose level or time period may be attributed to Compound 71-18 (propylene glycol alginate).

Table 6 indicates that propylene glycol alginate likewise exhibits no adverse effect on anaphase cells obtained from WI-38 cells in culture. It does, however, severely reduce the number of cells in mitosis at the highest dose (1000 µg/ml) tested. The positive control cells were exposed to TEM for 24 hours rather than 42 hours as were the cells being

exposed to the test compound. Cells exposed to TEM for periods longer than 24 hours have a very low percentage of anaphase figures.

Dominant Lethal Gene Test

Throughout this entire experiment the biological criteria used to evaluate mutagenic effects in the rat showed no consistent responses which could be attributed to treatment. There were occasional statistical differences between control and propylene glycol alginate dosed groups, but these were random occurrences without any suggestion of a time or dose-response effect.

Table 7 presents summary data of the implantations per pregnant female, Table 8 summarizes dead implants per pregnant female, Table 9 summarizes dead implants per total implants, Table 10 summarizes corpora lutea per pregnant female and Table 11 summarizes pre-implantation loss per pregnant female.

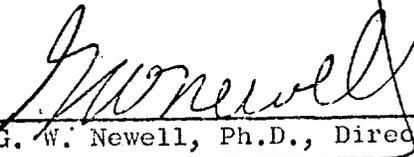
Appendix A contains the statistical analysis procedures for dominant lethal gene tests with a description and explanation of the computer printouts.

Appendix B contains the computer printouts for the raw data and statistical analyses.

Careful review and statistical evaluation of the data do not show propylene glycol alginate to be a mutagen in the rat by the dominant lethal gene test.



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ORAL TOXICITY - RAT

Table 1

Propylene
Compound: Glycol Alginate
FDA No: 71-18

Single Dose LD₅₀^a > 10 g/kg

Multiple Dose Toxicity^b > 5 g/kg

^a Five male, Sprague-Dawley rats, weighing 200-250 g each, were fasted overnight and then given oral doses of the candidate compound, prepared as a suspension in corn oil.

^b Five nonfasted Sprague-Dawley rats were intubated daily for five days with specific amounts of the candidate compound, given as a partial suspension in corn oil.

Table 2

HOST MEDIATED ASSAY
SUMMARY OF DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

A. Acute

Treatment	Organism					
	<u>Salmonella</u>				<u>Saccharomyces</u>	
	G46		TA 1530		D-3	
	MF	Mft/ MFc	MF	Mft/ MFc	RF	Rft/ RFc
Maximum	1.38×10^{-8}	1.63	4.60×10^{-8}	0.96	1.34×10^{-4}	1.07
Intermediate	9.55×10^{-9}	1.12	1.87×10^{-8}	0.39	1.94×10^{-4}	1.55
Low Level	6.54×10^{-9}	0.77	4.01×10^{-8}	0.84	4.63×10^{-5}	0.37
Control (+)	1.47×10^{-6} ✓	173.14	2.11×10^{-6} ✓	44.05	1.12×10^{-3} ✓	8.96
Control (-)	8.49×10^{-9} ✓	1.00	4.79×10^{-8} ✓	1.00	1.25×10^{-4} ✓	1.00

B. Subacute

Treatment	Organism					
	<u>Salmonella</u>				<u>Saccharomyces</u>	
	G46		TA 1530		D-3	
	MF	Mft/ MFc	MF	Mft/ MFc	RF	Rft/ RFc
Maximum	9.91×10^{-9}	0.53	1.08×10^{-7}	1.21	1.93×10^{-4}	0.84
Intermediate	2.31×10^{-8}	1.23	7.49×10^{-8}	0.84	1.83×10^{-4}	0.80
Low Level	1.43×10^{-8}	0.76	7.18×10^{-8}	0.80	1.87×10^{-4}	0.81
Control (-)	1.88×10^{-8} ✓	1.00	8.13×10^{-8} ✓	1.00	2.30×10^{-4} ✓	1.00

Table 3

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: G-46

Treatment: CONTROL (+)

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.218000000000ex 04	.233333333333ex 10	.934285714287ex-06
2	.205833333333ex 04	.276666666666ex 10	.743975903615ex-06
3	.119833333333ex 04	.175000000000ex 10	.684761904760ex-06
4	.271500000000ex 04	.276666666666ex 10	.981325301207ex-06
5	.275500000000ex 04	.445000000000ex 10	.619101123595ex-06
6	.181000000000ex 04	.945000000000ex 09	.191534391534ex-05
7	.371916666666ex 04	.876666666665ex 09	.424239543726ex-05
8	.118666666666ex 04	.731666666665ex 09	.162186788154ex-05
			.146788214768ex-05

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
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Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: G-46

Treatment: CONTROL (-)

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.100000000000ex 02	.630000000000ex 10	.158730158730ex-08
2	.500000000000ex 01	.516666666665ex 10	.967741935486ex-09
3	.750000000000ex 01	.520000000000ex 10	.144230769230ex-08
4	.416666666666ex 01	.231666666666ex 10	.179856115108ex-08
5	.175000000000ex 02	.117833333333ex 10	.148514851485ex-07
6	.150000000000ex 02	.783333333330ex 09	.191489361702ex-07
7	.100000000000ex 02	.650000000000ex 09	.153846153846ex-07
8	.916666666665ex 01	.721666666665ex 09	.127020785219ex-07
			.848537844891ex-08

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.666666666665ex 01	.165000000000ex 10	.404040404039ex-08
2	.100000000000ex 02	.895000000000ex 09	.111731843575ex-07
3	.250000000000ex 01	.183333333333ex 09	.136363636363ex-07
4	.666666666665ex 01	.980000000000ex 09	.680272108841ex-08
5	.750000000000ex 01	.128333333333ex 09	.584415584417ex-07
			.188188463128ex-07

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)
Organism: G-46
Treatment: MAXIMUM

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.416666666666ex 01	.142000000000ex 10	.293427250046ex-08
2	.916666666665ex 01	.581666666665ex 09	.157593123209ex-07
3	.916666666665ex 01	.213333333333ex 09	.429687499999ex-07
4	.500000000000ex 01	.154833333333ex 10	.322927879440ex-08
5	.320000000000ex 02	.315000000000ex 10	.101587301587ex-07
6	.916666666665ex 01	.710000000000ex 09	.129107981220ex-07
7	.500000000000ex 01	.638333333330ex 09	.783289817236ex-08
8	.833333333330ex 01	.795000000000ex 09	.104821802934ex-07
9	.666666666665ex 01	.521666666665ex 09	.127795527156ex-07
10	.141666666666ex 02	.758333333330ex 09	.186813186813ex-07
			.137737091558ex-07

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.666666666665ex 01	.666666666665ex 09	.100000000000ex-07
2	.250000000000ex 01	.990000000000ex 09	.252525252525ex-08
3	.166666666666ex 01	.203333333333ex 09	.819672131145ex-08
4	.500000000000ex 01	.750000000000ex 09	.666666666666ex-08
5	.103333333333ex 02	.155833333333ex 10	.695187165774ex-08
6	.916666666665ex 01	.368333333333ex 09	.248368778280ex-07
7	.583333333330ex 01	.575000000000ex 09	.101449275361ex-07
			.991033107500ex-08

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: G-46

Treatment: INTERMEDIATE

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.750000000000ex 01	.127833333333ex 10	.586701434160ex-08
2	.833333333330ex 01	.175000000000ex 10	.476190476188ex-08
3	.916666666665ex 01	.123333333333ex 10	.743243243243ex-08
4	.108333333333ex 02	.678333333330ex 09	.159705159705ex-07
5	.116666666666ex 02	.693333333330ex 09	.168269230769ex-07
6	.116666666666ex 02	.671666666665ex 09	.173697270470ex-07
7	.416666666666ex 01	.102833333333ex 10	.405186385738ex-08
8	.500000000000ex 01	.121333333333ex 10	.412087912089ex-08
			.955015757603ex-08

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.166666666666ex 01	.218333333333ex 09	.763358778624ex-08
2	.333333333333ex 01	.661666666665ex 09	.503778337532ex-08
3	.416666666666ex 01	.780000000000ex 09	.534188034187ex-08
4	.333333333333ex 01	.838333333330ex 09	.397614314116ex-08
5	.666666666665ex 01	.563333333330ex 09	.118343195266ex-07
6	.116666666666ex 02	.950000000000ex 08	.122807017543ex-06
7	.333333333333ex 01	.670000000000ex 09	.497512437810ex-08
8	.133333333333ex 02	.575000000000ex 09	.231884057970ex-07
			.230992827361ex-07

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: G-46

Treatment: Low

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.83333333330ex 01	.141166666666ex 10	.590318772137ex-08
2	.58333333330ex 01	.230000000000ex 10	.253623188404ex-08
3	.91666666665ex 01	.126833333333ex 10	.722733245729ex-08
4	.125000000000ex 02	.163333333333ex 10	.765306122450ex-08
5	.166666666666ex 01	.450000000000ex 09	.370370370368ex-08
6	.66666666665ex 01	.596666666665ex 09	.111731843575ex-07
7	.91666666665ex 01	.101666666666ex 10	.901639344266ex-08
8	.83333333330ex 00	.318333333333ex 09	.261780104711ex-08
9	.58333333330ex 01	.645000000000ex 09	.904392764852ex-08
			.654164705405ex-08

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.83333333330ex 01	.858333333330ex 09	.970873786407ex-08
2	.83333333330ex 01	.100666666666ex 10	.827814569538ex-08
3	.158333333333ex 02	.975000000000ex 09	.162393162392ex-07
4	.116666666666ex 02	.117000000000ex 10	.997150997145ex-08
5	.416666666666ex 01	.208333333333ex 09	.200000000000ex-07
6	.150000000000ex 02	.723333333330ex 09	.207373271890ex-07
7	.150000000000ex 02	.121500000000ex 10	.123456790123ex-07
8	.133333333333ex 02	.781666666665ex 09	.170575692963ex-07
			.142922856583ex-07

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: TA-1530

Treatment: CONTROL (+)

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.104333333333ex 04	.716666666665ex 09	.145581395348ex-05
2	.660000000000ex 03	.670000000000ex 09	.985074626865ex-06
3	.665000000000ex 03	.695000000000ex 09	.956834532374ex-06
4	.594166666665ex 03	.181666666666ex 09	.327064220183ex-05
5	.790833333330ex 03	.495000000000ex 09	.159764309763ex-05
6	.291666666666ex 03	.161666666666ex 09	.180412371134ex-05
7	.842500000000ex 03	.346666666666ex 09	.243028846154ex-05
8	.843750000000ex 03	.250000000000ex 09	.337500000000ex-05
9	.836666666665ex 03	.288333333333ex 09	.307514450866ex-05
			.210561834373ex-05

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
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Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: TA-1530

Treatment: CONTROL (-)

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.208333333333ex 02	.655000000000ex 09	.318066157760ex-07
2	.225000000000ex 02	.443333333333ex 09	.507518796992ex-07
3	.158333333333ex 02	.380000000000ex 09	.416666666665ex-07
4	.116666666666ex 02	.285000000000ex 09	.409356725143ex-07
5	.308333333333ex 02	.698333333330ex 09	.441527446302ex-07
6	.141666666666ex 02	.210000000000ex 09	.674603174600ex-07
7	.158333333333ex 02	.365000000000ex 09	.433789954336ex-07
8	.316666666666ex 02	.535000000000ex 09	.591900311525ex-07
9	.225000000000ex 02	.435000000000ex 09	.517241379310ex-07
			.478963401401ex-07

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.400000000000ex 02	.306666666666ex 09	.130434782608ex-06
2	.666666666665ex 02	.690000000000ex 09	.966183574876ex-07
3	.308333333333ex 02	.288333333333ex 09	.106936416184ex-06
4	.408333333333ex 02	.428333333333ex 09	.953307392996ex-07
5	.375000000000ex 02	.585000000000ex 09	.641025641025ex-07
6	.300000000000ex 02	.703333333330ex 09	.426540284362ex-07
			.893461480193ex-07

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: TA-1530

Treatment: MAXIMUM

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.750000000000ex 01	.286666666666ex 09	.261627906977ex-07
2	.125000000000ex 02	.460000000000ex 09	.271739130434ex-07
3	.250000000000ex 01	.333333333333ex 08	.750000000000ex-07
4	.191666666666ex 02	.815000000000ex 09	.235173824130ex-07
5	.116666666666ex 02	.235000000000ex 09	.496453900706ex-07
6	.166666666666ex 02	.718333333330ex 09	.232018561485ex-07
7	.108333333333ex 02	.215000000000ex 09	.503875968990ex-07
8	.216666666666ex 02	.351666666666ex 09	.616113744075ex-07
9	.150000000000ex 02	.458333333333ex 09	.327272727272ex-07
10	.158333333333ex 02	.175000000000ex 09	.904761904760ex-07
			.459903766881ex-07

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.250000000000ex 02	.261666666666ex 09	.955414012741ex-07
2	.133333333333ex 02	.500000000000ex 08	.266666666666ex-06
3	.258333333333ex 02	.256666666666ex 09	.100649350649ex-06
4	.100000000000ex 02	.666666666665ex 08	.150000000000ex-06
5	.266666666666ex 02	.438333333333ex 09	.608365019010ex-07
6	.400000000000ex 02	.636666666665ex 09	.628272251310ex-07
7	.833333333330ex 01	.446666666666ex 09	.186567164178ex-07
			.107882551719ex-06

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: TA-1530

Treatment: INTERMEDIATE

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.108333333333ex 02	.458333333333ex 09	.236363636363ex-07
2	.183333333333ex 02	.855000000000ex 09	.214424951266ex-07
3	.666666666665ex 01	.603333333330ex 09	.110497237569ex-07
4	.140000000000ex 02	.535000000000ex 09	.261682242990ex-07
5	.583333333330ex 01	.225000000000ex 09	.259259259257ex-07
6	.100000000000ex 02	.693333333330ex 09	.144230769231ex-07
7	.158333333333ex 02	.760000000000ex 09	.208333333332ex-07
8	.125000000000ex 02	.208333333333ex 10	.600000000000ex-08
			.186848928750ex-07

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.383333333333ex 02	.413333333333ex 09	.927419354838ex-07
2	.350000000000ex 02	.101166666666ex 10	.345963756180ex-07
3	.400000000000ex 02	.325000000000ex 09	.123076923076ex-06
4	.408333333333ex 02	.353333333333ex 09	.115566037735ex-06
5	.350000000000ex 02	.315000000000ex 09	.111111111111ex-06
6	.466666666666ex 02	.878333333330ex 09	.531309297913ex-07
7	.358333333333ex 02	.676666666665ex 09	.529556650247ex-07
8	.375000000000ex 02	.113166666666ex 10	.331369661268ex-07
9	.187500000000ex 02	.323333333333ex 09	.579896907217ex-07
			.749228482983ex-07

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: TA-1530

Treatment: Low

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.308333333333ex 02	.680000000000ex 09	.453431372548ex-07
2	.150000000000ex 02	.438333333333ex 09	.342205323194ex-07
3	.916666666665ex 01	.540000000000ex 09	.169753086419ex-07
4	.300000000000ex 02	.601666666665ex 09	.498614958450ex-07
5	.208333333333ex 02	.523333333330ex 09	.398089171976ex-07
6	.116666666666ex 02	.236666666666ex 09	.492957746477ex-07
7	.183333333333ex 02	.668333333330ex 09	.274314214464ex-07
8	.508333333330ex 02	.523333333330ex 09	.971337579617ex-07
9	.125000000000ex 02	.570000000000ex 09	.219298245614ex-07
10	.916666666665ex 01	.493333333333ex 09	.185810810810ex-07
			.400581250954ex-07

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.408333333333ex 02	.805000000000ex 09	.507246376811ex-07
2	.391666666666ex 02	.416666666666ex 09	.939999999999ex-07
3	.191666666666ex 02	.150000000000ex 09	.127777777777ex-06
4	.375000000000ex 02	.856666666665ex 09	.437743190662ex-07
5	.416666666666ex 02	.543333333330ex 09	.766871165647ex-07
6	.325000000000ex 02	.686666666665ex 09	.473300970874ex-07
7	.600000000000ex 02	.968333333330ex 09	.619621342515ex-07
			.717508689180ex-07

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: D-3

Treatment: CONTROL (+)

A. Acute

<u>Mouse No.</u>	<u>Ave. No. Mutant Colonies or Recombinants/ml</u>	<u>Ave. No. Colony Forming Units/ml</u>	<u>Mutation or Recombination Frequency</u>
1	.295000000000ex 05	.245000000000ex 08	.120408163265ex-02
2	.330000000000ex 05	.463333333333ex 08	.712230215827ex-03
3	.270000000000ex 05	.323333333333ex 08	.835051546392ex-03
4	.255000000000ex 05	.160000000000ex 08	.152375000000ex-02
5	.185000000000ex 05	.147000000000ex 08	.125850340136ex-02
6	.265000000000ex 05	.308333333333ex 08	.859459459460ex-03
7	.190000000000ex 05	.368333333333ex 08	.515837104072ex-03
8	.250000000000ex 05	.810000000000ex 07	.308641975308ex-02
9	.227777777777ex 05	.450000000000ex 08	.506172839504ex-03
10	.305000000000ex 05	.566666666665ex 08	.538235294119ex-03
			.111097412464ex-02

B. Subacute

<u>Mouse No.</u>	<u>Ave. No. Mutant Colonies or Recombinants/ml</u>	<u>Ave. No. Colony Forming Units/ml</u>	<u>Mutation or Recombination Frequency</u>
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Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)
Organism: D-3
Treatment: CONTROL (-)

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.35000000000ex 04	.63333333330ex 08	.552631578950ex-04
2	.25000000000ex 04	.26333333333ex 08	.949367088608ex-04
3	.50000000000ex 04	.39166666666ex 08	.127659574468ex-03
4	.35000000000ex 04	.10775000000ex 08	.324825986078ex-03
5	.45000000000ex 04	.38000000000ex 08	.118421052631ex-03
6	.75000000000ex 04	.66166666666ex 08	.113350125944ex-03
7	.714285714285ex 03	.16666666666ex 08	.428571428572ex-04
8	.31250000000ex 04	.18666666666ex 08	.167410714286ex-03
9	.55000000000ex 04	.70833333330ex 08	.776470588238ex-04
			.124707946870ex-03

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.25000000000ex 04	.13833333333ex 08	.180722891566ex-03
2	.60000000000ex 04	.24833333333ex 08	.241610736255ex-03
3	.55000000000ex 04	.14000000000ex 08	.392857142857ex-03
4	.15000000000ex 04	.94250000000ex 07	.159151193633ex-03
5	.20000000000ex 04	.19000000000ex 08	.105263157894ex-03
6	.50000000000ex 04	.20500000000ex 08	.243902439024ex-03
7	.50000000000ex 04	.31000000000ex 08	.161290322580ex-03
8	.25000000000ex 04	.12100000000ex 08	.206611570247ex-03
9	.15000000000ex 04	.40000000000ex 07	.37500000000ex-03
			.229601050671ex-03

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: D-3

Treatment: MAXIMUM

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.70000000000ex 04	.40000000000ex 08	.17500000000ex-03
2	.75000000000ex 04	.39333333333ex 08	.190677966101ex-03
3	.30000000000ex 04	.46166666666ex 08	.349819494585ex-04
4	.40000000000ex 04	.45000000000ex 08	.88888888888ex-04
5	.50000000000ex 03	.40000000000ex 07	.12500000000ex-03
6	.55000000000ex 04	.55500000000ex 08	.990990990990ex-04
7	.50000000000ex 04	.26166666666ex 08	.191082802548ex-03
			.133532958013ex-03

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.40000000000ex 04	.38333333333ex 08	.104347826087ex-03
2	.40000000000ex 04	.69250000000ex 07	.577617328519ex-03
3	.25000000000ex 04	.12925000000ex 08	.193423597678ex-03
4	.20000000000ex 04	.17833333333ex 08	.112149532710ex-03
5	.10000000000ex 04	.57250000000ex 07	.174672489082ex-03
6	.45000000000ex 04	.49166666666ex 08	.915254237289ex-04
7	.45000000000ex 04	.79666666665ex 08	.564853556486ex-04
8	.70000000000ex 04	.53500000000ex 08	.130841121495ex-03
9	.25000000000ex 04	.84750000000ex 07	.294985250737ex-03
			.192894213961ex-03

Table 3 (continued)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: D-3

Treatment: INTERMEDIATE

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.50000000000ex 04	.91250000000ex 07	.547945205479ex-03
2	.45000000000ex 04	.72000000000ex 08	.62500000000ex-04
3	.60000000000ex 04	.48166666666ex 08	.124567474048ex-03
4	.40000000000ex 04	.49833333333ex 08	.802675585284ex-04
5	.25000000000ex 04	.76666666665ex 08	.326086956522ex-04
6	.15000000000ex 04	.20500000000ex 08	.731707317073ex-04
7	.30000000000ex 04	.26333333333ex 08	.113924050633ex-03
8	.15000000000ex 04	.22833333333ex 08	.656934306570ex-04
9	.15000000000ex 04	.17666666666ex 08	.849056603776ex-04
10	.16111111111ex 05	.21333333333ex 08	.75520833333ex-03
			.194079114039ex-03

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.25000000000ex 04	.14333333333ex 08	.174418604651ex-03
2	.38888888888ex 04	.18250000000ex 08	.213089802130ex-03
3	.60000000000ex 04	.29500000000ex 08	.203389830508ex-03
4	.65000000000ex 04	.43166666666ex 08	.150579150579ex-03
5	.70000000000ex 04	.25333333333ex 08	.276315789474ex-03
6	.20000000000ex 04	.16500000000ex 08	.121212121212ex-03
7	.55000000000ex 04	.17500000000ex 08	.314235714235ex-03
8	.15000000000ex 04	.15166666666ex 08	.989010989015ex-04
9	.15000000000ex 04	.19000000000ex 08	.789473684210ex-04
10	.20000000000ex 04	.98750000000ex 07	.202531645569ex-03
			.183367112571ex-03

Table 3 (concluded)

HOST MEDIATED ASSAY
INDIVIDUAL MOUSE DATA

Compound No.: 71-18 (Propylene Glycol Alginate)

Organism: D-3

Treatment: Low

A. Acute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.35000000000ex 04	.71166666665ex 08	.491803278689ex-04
2	.00000000000ex 03	.13750000000ex 07	.00000000000ex 00
3	.45000000000ex 04	.99500000000ex 08	.452261306532ex-04
4	.20000000000ex 04	.65166666665ex 08	.306905370844ex-04
5	.25000000000ex 04	.22500000000ex 08	.11111111111ex-03
6	.15000000000ex 04	.35166666666ex 08	.426540284360ex-04
7	.50000000000ex 04	.11083333333ex 09	.451127819550ex-04
			.462821310154ex-04

B. Subacute

Mouse No.	Ave. No. Mutant Colonies or Recombinants/ml	Ave. No. Colony Forming Units/ml	Mutation or Recombination Frequency
1	.45000000000ex 04	.16550000000ex 08	.271903323262ex-03
2	.10000000000ex 04	.75000000000ex 07	.13333333333ex-03
3	.65000000000ex 04	.29825000000ex 08	.217937971500ex-03
4	.30000000000ex 04	.13850000000ex 08	.216606498194ex-03
5	.15000000000ex 04	.11575000000ex 08	.129589632829ex-03
6	.30000000000ex 04	.33500000000ex 08	.895522388059ex-04
7	.15000000000ex 04	.11025000000ex 08	.136054421768ex-03
8	.45000000000ex 04	.15000000000ex 08	.30000000000ex-03
			.186872177460ex-03

Table 4

HOST-MEDIATED ASSAY
IN VITRO MUTAGENICITY OF COMPOUND 71-18 (Propylene Glycol Alginate)

Salmonella typhimurium G-46

<u>5% w/v 71-18</u>	<u>EMS</u>
negative	positive

Salmonella typhimurium TA-1530

<u>5% w/v 71-18</u>	<u>EMS</u>
negative	positive

Saccharomyces cerevisiae D-3

<u>Compound</u>	<u>Concentration</u>	<u>Survival (%)</u>	<u>Recombinants/10⁵ Survivors</u>	<u>RF1 RF2</u>
71-18	1% w/v	4.77	217.98	15.26
71-18	0.5% w/v	93.07	20.92	1.42
EMS	0.1% w/v	86	289.79	20.29
Control (-)	--	100	14.28	1.00

Table 5

CYTOGENETIC ASSAY
METAPHASE SUMMARY SHEET BY TIME OF SACRIFICE
Propylene Glycol Alginate (71-18)

<u>Dosage (mg/kg)</u>	<u>Time*</u>	<u>Mitotic Index (%)</u>	<u>No. of Animals</u>	<u>No. of Cells</u>	<u>Cells with Breaks (%)</u>	<u>Cells with Rearrangements (%)</u>	<u>Cells with More than One Type of Aber. (%)</u>	<u>Cells with Aber. (%)</u>
TEM (0.4 mg/kg)	6	0.80	5	250	10.4	0.4	0	10.8
Negative Control	6	3.05	3	150	0.7	0	0	0.7
30 mg/kg	6	2.20	5	250	1.2	0	0	1.2
2500 mg/kg	6	1.55	5	242	0	0	0	0
5000 mg/kg	6	2.65	5	250	0.4	0	0	0.4
Negative Control	24	2.65	3	150	0	0	0	0
30 mg/kg	24	2.70	5	250	0.8	0	0	0.8
2500 mg/kg	24	1.55	5	250	0.8	0	0	0.8
5000 mg/kg	24	1.50	5	250	0.4	0	0	0.4
Negative Control	48	2.20	3	150	0	0	0	0
30 mg/kg	48	1.65	5	250	0.4	0	0	0.4
2500 mg/kg	48	1.75	5	250	0	0	0	0
5000 mg/kg	48	2.05	5	250	0.4	0	0	0.4
Negative Control	SA**	2.00	3	150	0	0	0	0
30 mg/kg	SA	2.00	4	200	0.5	0	0	0.5
2500 mg/kg	SA	2.45	5	250	0	0	0	0
5000 mg/kg	SA	1.45	5	250	0.4	0	0	0.4

* Time of sacrifice after treatment (hours)

** SA=subacute

Table 6

CYTOGENETIC ASSAY
ANAPHASE SUMMARY SHEET
Propylene Glycol Alginate (71-18)

<u>Dosage</u>	<u>Time*</u>	<u>No. of Cells</u>	<u>Cells with Acentric Fragments (%)</u>	<u>Cells with Bridges (%)</u>	<u>Multipolar Cells (%)</u>	<u>Other (Abnormal) (%)</u>	<u>Cells with More than One Type Aber. (%)</u>	<u>Cells with Aber. (%)</u>
Negative Control	42	112	3.6	5.4	1.8	0	0	10.7
10 µg/ml	42	200	3.0	4.0	2.5	0.5	2.5	7.0
100 µg/ml	42	185	3.8	2.7	0.5	0	0.5	6.5
1000 µg/ml	42	44	4.5	0	0	2.3	2.3	4.5
TEM (0.05 µg/ml)	24	55	34.5	9.1	7.3	41.8	25.5	65.5

* Time of harvest after treatment (hours).

DOMINANT LETHAL GENE-RAT

Table 7

AVERAGE IMPLANTATIONS PER PREGNANT FEMALE

Propylene
Compound: Glycol Alginate
FDA No: 71-18

Week of Study	Control (10 ml/kg)	TEM (0.2 mg/kg)	71-18 (30 mg/kg)	71-18 (2.5 g/kg)	71-18 (5 g/kg)
<u>Acute-Single Dose</u>					
1	236/19=12.4	193/19=10.2*	206/16=12.9	214/19=11.3	229/17=13.5
2	220/20=11.0	159/19= 8.4*	225/20=11.3	221/19=11.6	246/20=12.3
3	209/20=10.5	170/20= 8.5*	204/19=10.7	189/17=11.1	212/20=10.6
4	230/20=11.5	60/18= 3.3**	217/20=10.9	220/20=11.0	192/18=10.7
5	214/20=10.7	191/19=10.1	223/19=11.7	214/20=10.7	231/19=12.2
6	236/20=11.8	227/20=11.4	220/19=11.6	240/20=12.0	244/20=12.2
7	239/20=12.0	239/20=11.5	228/20=11.4	215/20=10.8	222/20=11.1
8	224/20=11.2	213/20=10.7	236/19=12.4	229/18=12.7*I	217/19=11.4
<u>Subacute-Multiple Dose</u>					
1			206/18=11.4	223/19=11.7	138/11=12.5
2			214/18=11.9	215/19=11.3	206/19=10.8
3			236/18=13.1**I	217/20=10.9	199/18=11.1
4			209/20=10.5	204/20=10.2	208/17=12.2
5			233/19=12.3	215/20=10.8	234/20=11.7
6			237/20=11.9	229/20=11.5	198/20= 9.9
7			186/16=11.6	191/17=11.2	207/18=11.5

* Significant at P < 0.05

** Significant at P < 0.01

I Increase above control

DOMINANT LETHAL GENE-RAT

Table 8

AVERAGE DEAD IMPLANTS PER PREGNANT FEMALE

Propylene
Compound: Glycol Alginate
FDA No: 71-18

Week of Study	Control (10 ml/kg)	TEM (0.2 mg/kg)	71-18 (30 mg/kg)	71-18 (2.5 g/kg)	71-18 (5 g/kg)
<u>Acute-Single Dose</u>					
1	18/19=0.95	75/19=3.95**	14/16=0.88	8/19=0.42	22/17=1.29
2	11/20=0.55	135/19=7.11**	17/20=0.85	10/19=0.53	23/20=1.15
3	18/20=0.90	144/20=7.20**	13/19=0.68	18/17=1.06	19/20=0.95
4	19/20=0.95	58/18=3.22**	19/20=0.95	33/20=1.65	30/18=1.67
5	15/20=0.75	62/19=3.26**	19/19=1.00	18/20=0.90	14/19=0.74
6	22/20=1.10	41/20=2.05*	36/19=1.89	24/20=1.20	13/20=0.65
7	24/20=1.20	26/20=1.30	21/20=1.05	22/20=1.10	29/20=1.45
8	11/20=0.55	18/20=0.90	19/19=1.00	26/18=1.44	27/19=1.42
<u>Subacute-Multiple Dose</u>					
1			7/18=0.39	7/19=0.37	9/11=0.82
2			7/18=0.39	14/19=0.74	16/19=0.84
3			16/18=0.89	9/20=0.45	13/18=0.72
4			10/20=0.50	22/20=1.05	21/17=1.24
5			10/19=0.53	18/20=0.90	17/20=0.85
6			21/10=1.05	18/20=0.90	22/20=1.10
7			6/16=0.38	11/17=0.65	20/18=1.11

* Significant at P < 0.05

** Significant at P < 0.01

DOMINANT LETHAL GENE-RAT

Table 9

DEAD IMPLANTS/TOTAL IMPLANTS

Propylene
Compound: Glycol Aginate
FDA No: 71-18

Week of Study	Control (10 ml/kg)	TEM (0.2 mg/kg)	71- 18 (30 mg/kg)	71-18 (2.5 g/kg)	71-18 (5 g/kg)
<u>Acute-Single Dose</u>					
1	18/236=0.08	75/193=0.39**	14/206=0.07	8/214=0.04	22/229=0.10
2	11/220=0.05	135/159=0.85**	17/225=0.08	10/221=0.05	23/246=0.09
3	18/209=0.09	144/170=0.85**	13/204=0.06	18/189=0.10	19/212=0.09
4	19/230=0.08	58/60=0.97**	19/217=0.09	33/220=0.15	30/192=0.16
5	15/214=0.07	62/191=0.32**	19/223=0.09	18/214=0.08	14/231=0.06
6	22/236=0.09	41/227=0.18	36/220=0.16	24/240=0.10	13/244=0.05
7	24/239=1.00	26/230=0.11	21/228=0.09	22/215=0.10	29/222=0.13
8	11/224=0.05	18/213=0.08	19/236=0.08	26/229=0.11*	27/217=0.12
<u>Subacute-Multiple Dose</u>					
1			7/206=0.03	7/223=0.03	9/138=0.07
2			7/214=0.03	14/215=0.07	16/206=0.08
3			16/236=0.07	9/217=0.04	13/199=0.07
4			10/209=0.05	22/204=0.11	21/208=0.10
5			10/233=0.04	18/215=0.08	17/234=0.07
6			21/237=0.09	18/229=0.08	22/198=0.11
7			6/186=0.03	11/191=0.06	20/207=0.10

* Significant at P < 0.05

** Significant at P < 0.01

DOMINANT LETHAL GENE-RAT

Table 10

AVERAGE CORPORA LUTEA PER PREGNANT FEMALE

Propylene
Compound: Glycol Aginate
FDA No: 71-18

Week of Study	Control (10 ml/kg)	TEM (0.2 mg/kg)	71-18 (30 mg/kg)	71-18 (2.5 g/kg)	71-18 (5 g/kg)
<u>Acute-Single Dose</u>					
1	252/19=13.3	252/19=13.3	228/16=14.3	259/19=13.6	240/17=14.1
2	254/20=12.7	220/19=11.6	245/20=12.3	241/19=12.7	263/20=13.2
3	244/20=12.2	247/20=12.4	236/19=12.4	221/17=13.0	244/20=12.2
4	260/20=13.0	227/18=12.6	240/20=12.0 *	258/20=12.9	225/18=12.5
5	244/20=12.2	234/19=12.3	242/19=12.7	252/20=12.6	255/19=13.4 *I
6	265/20=13.3	253/20=12.7	254/19=13.4	259/20=13.0	256/20=12.8
7	259/20=13.0	250/20=12.5	256/20=12.8	236/20=11.8 *	252/20=12.6
8	242/20=12.1	258/20=12.9	257/19=13.5 **I	250/18=13.9 **I	263/19=13.8 **I
<u>Subacute-Multiple Dose</u>					
1			213/18=11.8 *	240/19=12.6	149/11=13.5
2			244/18=13.6	244/19=12.8	252/19=13.3
3			243/18=13.5 *I	244/20=12.2	223/18=12.4
4			256/20=12.8	237/20=11.9 *	217/17=12.8
5			267/19=14.1 **I	273/20=13.7 **I	268/20=13.4 *I
6			274/20=13.7	252/20=12.6	243/20=12.2
7			199/16=12.4	206/17=12.1 *	228/18=12.7

* Significant at P < 0.05

** Significant at P < 0.01

I Increase above control

DOMINANT LETHAL GENE-RAT

Table 11

AVERAGE PREIMPLANTATION LOSS PER PREGNANT FEMALE

Propylene
Compound: Glycol Alginate
FDA No: 71-18

Week of Study	Control (10 ml/kg)	TEM (0.2 mg/kg)	71-18 (30 mg/kg)	71-18 (2.5 g/kg)	71-18 (5 g/kg)
<u>Acute-Single Dose</u>					
1	16/19=0.84	59/19=3.11*	22/16=1.38	45/19=2.37	11/17=0.65
2	34/20=1.70	61/19=3.21*	20/20=1.00	20/19=1.05	17/20=0.85
3	35/20=1.75	77/20=3.85*	32/19=1.68	32/17=1.88	32/20=1.60
4	30/20=1.50	167/18=9.28**	23/20=1.15	38/20=1.90	33/18=1.83
5	30/20=1.50	43/19=2.26	19/19=1.00	38/20=1.90	24/19=1.26
6	29/20=1.45	26/20=1.30	34/19=1.79	19/20=0.95	12/20=0.60
7	20/20=1.00	20/20=1.00	28/20=1.40	21/20=1.05	30/20=1.50
8	18/20=0.90	45/20=2.25	21/19=1.11	21/18=1.17	46/19=2.42
<u>Subacute-Multiple Dose</u>					
1			7/18=0.39	17/19=0.89	11/11=1.00
2			30/18=1.67	29/19=1.53	46/19=2.42
3			7/18=0.39 **D	27/20=1.35	24/18=1.33
4			47/20=2.35	33/20=1.65	9/17=0.53
5			34/19=1.79	58/20=2.90	34/20=1.70
6			37/20=1.85	23/20=1.15	45/20=2.25
7			13/16=0.81	15/17=0.88	21/18=1.17

* Significant at P < 0.05

** Significant at P < 0.01

D Decrease below control

APPENDIX A

Statistical Analysis Procedures for Dominant Lethal
Gene Tests With a Description and Explanation of the
Computer Printouts

Statistical Analysis Procedures for Dominant Lethal Gene Tests With
 A Description and Explanation of the Computer Printouts

The first stage of the analysis of the dominant lethal tests of the mutagenic studies on chemicals will be the preparation of punched cards from work sheets. Each sheet contains autopsy data for the female rats that were mated, two per male, to 10 males of the same dosage group in one particular week. There are 9 dosage groups for some of the chemical additives studied, and 8 groups for the others. The 9 groups consist of 5 1-dose groups and 4 5-dose (multiple treatment) groups. The 1-dose groups are for the vehicle control, 3 additive dosage levels, and a positive control (TEM). Each rat in these groups is mated weekly for 8 weeks. The 5-dose groups are for the vehicle control and the 3 additive dosage levels. The rats in these groups are mated weekly for 7 weeks. (There will be a deck of 1360 cards for each compound.)

The second stage is the execution of a computer program, KLUTE, which performs the following operations (where each statistical calculation is done once for each week's data):

1. The data cards are read and stored in central memory while a check is made to verify that the number of corpora lutea on each side is greater than or equal to the number of implants. If any data fail this check, the run is aborted and the data will be returned for review. The entire set of input data is printed out.
2. The fertility index (the number of pregnant females divided by the number of mated females) is calculated.
3. The chi-square test is done to compare each dosage level to the control on fertility. Let:

N_i = no. of mated females at dose level i ,

n_i = no. of pregnant females at dose level i .

Then the chi-square 2 x 2 tables are of the form:

$$\begin{bmatrix} n_0 & n_i \\ N_0 - n_0 & N_i - n_i \end{bmatrix}$$

and chi-squared (with 1 degree of freedom) is:

$$X_1^2 = \frac{(N_0 + N_1) \left(|n_0(N_1 - n_1) - n_1(N_0 - n_0)| - (N_0 + N_1)/2 \right)^2}{(n_0 + n_1)(N_0 - n_0 + N_1 - n_1)(N_0)(N_1)} \quad (\text{corrected for continuity})$$

where the subscript 0 represents the control group.*

For each dosage group (including the control group and TEM), the following is printed out: the number of pregnant females (N PRG), the number of mated females (N MTD), the fertility index and X^2 .

4. Armitage's test for a linear trend in proportions is applied to the fertility index. The formula for this calculation is found on pages 248-248 of "Statistical Calculations" by Snedecor and Cochran, 6th Edition, Iowa State University Press, 1967. Using the notation of (3) above, we have a 2 x 3 contingency table of the form:

	<u>dose 1</u>	<u>dose 2</u>	<u>dose 3</u>	<u>row totals</u>
	n_1	n_2	n_3	t
	$N_1 - n_1$	$N_2 - n_2$	$N_3 - n_3$	$T - t$
Column Totals	N_1	N_2	N_3	T

Armitage's "chi-square" is given as $X_{(C-1)}^2 - X_1^2$, where $C=3$ and

$$X_1^2 = \frac{T(T \sum n_x - t \sum N_x)^2}{t(T-t)(T \sum N_x - (\sum N_x)^2)}, \quad X_{(C-1)}^2 = \frac{T^2 \left(\sum \frac{n_i^2}{N_i} - t^2 \right)}{t(T-t)}$$

where $\sum n_x$ stands for $\sum_{i=1}^C n_i x_i$, $\sum \frac{n_i^2}{N_i}$ for $\sum_{i=1}^C \frac{n_i^2}{N_i}$, etc, and the x_i are the dosage levels.

This calculation will be repeated with x replaced by $\log x$. The Armitage test will also be applied to the following 2 x 4 contingency table:

*In all tests, the single-dose treatment groups are compared with the single-dose control group and the multiple-dose treatment groups compared with the multiple-dose control group.

<u>Control</u>	<u>dose 1</u>	<u>dose 2</u>	<u>dose 3</u>
n_0	n_1	n_2	n_3
$N_0 - n_0$	$N_1 - n_1$	$N_2 - n_2$	$N_3 - n_3$

In this case, $C=4$.

The printout for the Armitage tests includes the number pregnant (N PRG) and the number mated (N MTD) for each of the 3 or 4 groups included in the tests, plus $X_{(C-1)}^2$, X_{-1}^2 and their difference (labeled ARMITG CHISQ).

5. The t-test is applied to determine significant differences between the average number of implantations per pregnant female at a dose level, and the average for the control. Let

n_i = no. of pregnant females at dose level i .

u_{ij} = total no. of implantations for pregnant female j of dose i .

Then,

$$\bar{u}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} u_{ij}$$

$$S_i^2 = \sum_{j=1}^{n_i} (u_{ij} - \bar{u}_i)^2$$

The T-statistic for dose i has $n_0 + n_i - 2$ degrees of freedom, and is equal to:

$$t_i = \frac{\bar{u}_0 - \bar{u}_i}{\left[\frac{S_0^2 + S_i^2}{n_0 + n_i - 2} \left(\frac{1}{n_0} + \frac{1}{n_i} \right) \right]^{1/2}}$$

The t-test printout gives, for each group: the number pregnant (N PRG), the mean and standard deviation of the number of implantations. The absolute value of T and the degrees of freedom (DF) are given for each treatment group and for TEM.

6. A regression fit of the average number of implantations, \bar{u}_i , is made for both the arithmetic and logarithmic dose X_i and $\log X_i$ to see which is better.

These two fits include the data from the three treatment groups only. A third regression using the X_i as independent variables, include data from the three treatment groups and the control group. For each regression, the quantities computed and printed for this step are:

N = the number of observations
 = total number of pregnant females.

The regressions are computed as follows:

Let N = the number of observations, i.e., the total number of pregnant females in the groups used in the regression,

X_i = the value of the independent variable (dose or log dose) for the i -th female.

U_i = the value of the dependent variable (number of implantations) for the i -th female.

Then,

$$\text{XBAR} = \bar{X} = \frac{1}{N} \sum_{i=1}^N X_i$$

SD X = standard deviation of the X_i

$$= \left[\frac{1}{N-1} SS_X \right]^{1/2},$$

where $SS_X = \sum_{i=1}^N (X_i - \bar{X})^2$

$$\text{UBAR} = \bar{U} = \frac{1}{N} \sum_{i=1}^N U_i,$$

SD U = standard deviation of the U_i

$$= \left[\frac{1}{N-1} SS_U \right]^{1/2},$$

where $SS_U = \sum_{i=1}^N (U_i - \bar{U})^2$,

and $SS_{XU} = \sum_{i=1}^N (X_i - \bar{X})(U_i - \bar{U})$.

From these quantities, we compute:

B = estimate of the slope of the regression line

$$= \frac{SS_{XU}}{SS_X}$$

A = estimate of the intercept of the regression line.

$$= \bar{U} - B\bar{X}$$

Also,

VAR U X = variance of U about the regression line

$$= \frac{SS_U - SS_{XY}^2 / SS_X}{N-2}$$

and from this is computed,

VARB = variance of the estimate, B

$$= \frac{\text{VARU.X}}{SS_X}$$

VARA = variance of the estimate, A

$$= \text{VARU.X} \left[\frac{1}{N} + \frac{\bar{X}^2}{SS_X} \right]$$

VARUBAR = variance of \bar{U} ,

$$= \frac{\text{VARU.X}}{N}$$

and

CV U = coefficient of variation of U.

$$= \frac{(\text{VARU.X})^{1/2}}{\bar{U}}$$

And finally we have:

TB = the t-statistic for testing the hypothesis that the regression slope is zero

$$= \frac{B}{\sqrt{\text{VARB}}}$$

DF = number of degrees of freedom for TB,

$$N - 2$$

7. The preimplantation loss, y_{ij} , is calculated for each pregnant female, j , as the number of corpora lutea, v_{ij} , minus the number of implantations, u_{ij} . Then the Freeman-Tukey transformation is applied to y_{ij} as follows:

$$f_{ij} = \sin^{-1} \sqrt{\frac{y_{ij}}{v_{ij}+1}} + \sin^{-1} \sqrt{\frac{y_{ij}+1}{v_{ij}+1}}$$

The t-test is then applied to the f 's. Let

$$\bar{f}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} f_{ij}$$

$$S_i^2 = \sum_{j=1}^{n_i} (f_{ij} - \bar{f}_i)^2,$$

where n_i , and n_o are defined above (step 3).

Then

$$t_i = \frac{\bar{f}_o - \bar{f}_i}{\left[\frac{S_o^2 + S_i^2}{n_o + n_i - 2} \left(\frac{1}{n_o} + \frac{1}{n_i} \right) \right]^{1/2}}$$

The printout gives, for each group, the number of pregnant females (N PRG), the mean and standard deviation of the f_{ij} 's. For each treatment group and for TEM, the absolute value of t_i (T), and its degrees of freedom (DF) are given.

8. The number of dead implants, z_{ij} , for each female, j , is the sum of the early and late deaths. The Freeman-Tukey transformation and the subsequent t-test is applied to the dead implants by repeating step 7 above with z_{ij} substituted for y_{ij} .

The printout is the same as for step 7, except that the number of females (N FEM) in each group is printed instead of N PRG.

9. The number of females with one or more dead implants, m_i , is calculated. In the printout, the m_i are referred to as N WDI (i.e., "number with dead implants").

10. The chi-square test and Armitage's test for a linear trend is calculated for the proportion of females with one or more dead implants,

$$p_i = \frac{m_i}{n_i}$$

by repeating steps 3 and 4, above, with m_i substituted for n_i .

In the printout, the ratio, p_i , is called the "death index", in analogy with the fertility index.

11. The ratios, p_i , computed above, undergo a probit analysis to determine whether the probit of this proportion is linearly related to the log dose. Computer subroutine PROBT, from the IBM System/360 Scientific Subroutine Package Version III, is used to compute A and B and the X^2 statistic for the regression equation,

$$P_i = A + B \cdot \log x_i$$

where P_i is derived by the program from

$$P_i = \int_{-5}^{\infty} N_x(0,1) dx = p_i.$$

($N_x(0,1)$ is the normal curve, with a mean of 0 and a standard deviation of 1).

12. The number of dead implants, z_{ij} , and the number of total implants, u_{ij} , are calculated for each female, j . The Freeman-Tukey transformation and subsequent t-test is applied to this data by repeating step 7, above, as follows:

$$f_{ij} = \sin^{-1} \sqrt{\frac{z_{ij}}{u_{ij}+1}} + \sin^{-1} \sqrt{\frac{z_{ij}+1}{u_{ij}+1}}$$

$$\bar{f}_i = \frac{1}{N_i} \sum_{j=1}^{N_i} f_{ij}$$

$$S_i^2 = \sum_{j=1}^{N_i} (f_{ij} - \bar{f}_i)^2$$

$$t_i = \frac{\bar{f}_0 - \bar{f}_i}{\left[\frac{S_0^2 + S_i^2}{N_0 + N_i - 2} \left(\frac{1}{N_0} + \frac{1}{N_i} \right) \right]^{1/2}}$$

The printout for this step is the same as for step 7, except that the number of females (N FEM) in each group is printed instead of N PRG.

13. Five one-way analyses of variance are performed on the control groups' data. The five variables analyzed are:

- a. number of pregnant females,
- b. number of implantations per pregnant female,
- c. the pre-implantation loss per pregnant female,
- d. the number of dead implants per female,
- e. the ratio of dead implants to the total implants.

For each of these variables the ANOVA calculations are as follows:

Let R_{kj} = value of one of the above variables for female j assigned to male k , and

L_k = no. of females assigned to male k .

M = no. of males

$$\bar{R}_k = \frac{1}{L_k} \sum_{j=1}^{L_k} R_{kj}$$

$$\bar{R} = \frac{1}{M} \sum_{k=1}^M \bar{R}_k$$

Then, the sum-of-squares-within-males = $SUMSQ_w$

$$= \sum_{j=1}^{L_k} (R_{kj} - \bar{R}_k)^2,$$

the degrees-of-freedom-within-males = DF_w

$$= \sum_{k=1}^M (L_k - 1),$$

and the mean-square-within-males = $MEANSQ_w = \frac{SUMSQ_w}{DF_w}$

Similarly, the sum-of-squares-between-males = $SUMSQ_B = \sum_{k=1}^M L_k (\bar{R}_k - \bar{R})^2,$

the degrees-of-freedom-between-males = $DF_B = M - 1,$

and the mean-square-between-males = $MEANSQ_B = \frac{SUMSQ_B}{DF_B}$

Finally, the F-ratio is $F = \frac{\text{MEANSQ}_B}{\text{MEANSQ}_W}$.

In the printout, these quantities are labeled without the subscripts, but the "within" and "between" quantities are identified by the page heading. Also, the total-sum-of-squares = $\text{SUMSQ}_W + \text{SUMSQ}_B$, and its degrees-of-freedom

$$= \sum_{k=1}^M L_k - 1,$$

are printed.

14. The t-test is applied to determine significant differences between the average number of corpora lutea per pregnant female at a dose level, and the average for the control. Let

n_i = no. of pregnant females at dose level i .

C_{ij} = total no. of corpora lutea for pregnant female j of dose i .

Then,

$$\bar{C}_i = \frac{1}{n_i} \sum_{j=1}^{n_i} C_{ij}$$

$$S_i^2 = \sum_{j=1}^{n_i} (C_{ij} - \bar{C}_i)^2$$

The T-statistic for dose i has $n_o + n_i - 2$ degrees of freedom, and is equal to:

$$t_i = \frac{\bar{C}_o - \bar{C}_i}{\sqrt{\frac{S_o^2 + S_i^2}{n_o + n_i - 2} \left(\frac{1}{n_o} + \frac{1}{n_i} \right)}}$$

The t-test printout gives, for each group: the number pregnant (N PRG), the mean and standard deviation of the number of corpora lutea. The absolute value of T and the degrees of freedom (DF) are given for each treatment group and for TEM.

APPENDIX B
Raw Data and Statistical Analyses

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TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	1	S	2.5000	31	61	Y	7	5	0	0	0	0	7	6
71-18	1	S	2.5000	31	62	Y	4	9	0	1	0	0	5	11
71-18	1	S	2.5000	32	63	Y	2	0	1	0	0	0	7	5
71-18	1	S	2.5000	32	64	Y	0	11	0	0	0	0	1	11
71-18	1	S	2.5000	33	65	Y	6	7	0	0	0	0	6	9
71-18	1	S	2.5000	33	66	Y	9	5	0	0	0	0	10	5
71-18	1	S	2.5000	34	67	Y	8	6	0	0	0	0	8	6
71-18	1	S	2.5000	34	68	N	0	0	0	0	0	0	0	0
71-18	1	S	2.5000	35	69	Y	6	6	0	0	0	0	7	6
71-18	1	S	2.5000	35	70	Y	8	6	0	0	0	0	8	7
71-18	1	S	2.5000	36	71	Y	4	11	0	0	0	0	4	11
71-18	1	S	2.5000	36	72	Y	4	2	1	0	0	0	8	5
71-18	1	S	2.5000	37	73	Y	9	6	0	0	1	0	9	7
71-18	1	S	2.5000	37	74	Y	5	8	1	0	0	0	5	8
71-18	1	S	2.5000	38	75	Y	7	9	0	0	1	0	7	9
71-18	1	S	2.5000	38	76	Y	8	5	0	0	0	0	8	5
71-18	1	S	2.5000	39	77	Y	0	2	0	0	0	0	6	6
71-18	1	S	2.5000	39	78	Y	6	5	0	0	0	0	6	6
71-18	1	S	2.5000	40	79	Y	4	1	0	0	1	1	4	7
71-18	1	S	2.5000	40	80	Y	5	8	0	0	0	0	5	8
71-18	1	S	5.0000	41	81	Y	9	5	0	1	0	1	10	5
71-18	1	S	5.0000	41	82	N	0	0	0	0	0	0	0	0
71-18	1	S	5.0000	42	83	Y	9	7	0	0	0	0	9	7
71-18	1	S	5.0000	42	84	Y	7	4	0	0	0	0	8	5
71-18	1	S	5.0000	43	85	Y	7	6	0	0	0	0	7	8
71-18	1	S	5.0000	43	86	Y	7	7	0	1	0	0	7	7
71-18	1	S	5.0000	44	87	N	0	0	0	0	0	0	0	0
71-18	1	S	5.0000	44	88	Y	8	3	0	1	0	0	8	3
71-18	1	S	5.0000	45	89	Y	7	6	0	0	1	1	7	6
71-18	1	S	5.0000	45	90	Y	8	4	0	0	0	0	8	5
71-18	1	S	5.0000	46	91	Y	7	8	3	4	0	1	7	9
71-18	1	S	5.0000	46	92	Y	5	10	3	4	0	0	5	11
71-18	1	S	5.0000	47	93	Y	6	5	0	0	0	0	6	5
71-18	1	S	5.0000	47	94	Y	5	9	0	0	0	0	5	9
71-18	1	S	5.0000	48	95	Y	4	7	0	0	0	0	5	9
71-18	1	S	5.0000	48	96	Y	5	10	0	0	0	0	5	10
71-18	1	S	5.0000	49	97	Y	7	10	0	0	0	0	7	10
71-18	1	S	5.0000	49	98	Y	9	6	0	0	0	0	9	6
71-18	1	S	5.0000	50	99	N	0	0	0	0	0	0	0	0
71-18	1	S	5.0000	50	100	Y	5	7	1	0	0	0	5	7

DOMINANT LETHAL GENE STUDY OF COMPOUND 71-18

PROPYLENE GLYCOL ALGINATE

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TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	1	M	.0300	11	21	Y	3	5	0	0	0	0	5	5
71-18	1	M	.0300	11	22	Y	5	7	1	0	0	0	5	7
71-18	1	M	.0300	12	23	Y	7	5	0	0	1	0	7	6
71-18	1	M	.0300	12	24	Y	6	5	0	0	0	0	6	5
71-18	1	M	.0300	13	25	Y	7	3	1	0	0	0	7	3
71-18	1	M	.0300	13	26	Y	8	3	0	0	0	0	8	4
71-18	1	M	.0300	14	27	Y	5	7	0	0	0	0	5	7
71-18	1	M	.0300	14	28	Y	5	7	0	0	0	0	5	7
71-18	1	M	.0300	15	29	Y	5	4	0	0	0	0	5	4
71-18	1	M	.0300	15	30	N	0	0	0	0	0	0	0	0
71-18	1	M	.0300	16	31	Y	7	6	1	0	0	0	7	6
71-18	1	M	.0300	16	32	N	0	0	0	0	0	0	0	0
71-18	1	M	.0300	17	33	Y	7	8	0	0	2	0	7	8
71-18	1	M	.0300	17	34	Y	5	5	0	0	0	0	5	5
71-18	1	M	.0300	18	35	Y	7	6	0	0	0	0	7	6
71-18	1	M	.0300	18	35	Y	4	7	0	0	0	0	4	7
71-18	1	M	.0300	19	37	Y	7	4	0	0	0	0	7	4
71-18	1	M	.0300	19	38	Y	3	11	0	0	0	1	3	11
71-18	1	M	.0300	20	39	Y	8	5	0	0	0	0	8	5
71-18	1	M	.0300	20	40	Y	5	4	0	0	0	0	7	5
71-18	1	M	2.5000	21	41	Y	9	4	0	0	0	0	9	4
71-18	1	M	2.5000	21	42	Y	8	7	0	0	1	0	9	7
71-18	1	M	2.5000	22	43	Y	4	1	1	0	0	0	6	3
71-18	1	M	2.5000	22	44	Y	4	6	2	1	0	0	5	7
71-18	1	M	2.5000	23	45	Y	6	3	0	0	0	0	6	3
71-18	1	M	2.5000	23	46	Y	4	9	0	0	0	0	4	9
71-18	1	M	2.5000	24	47	Y	6	7	0	1	0	0	6	7
71-18	1	M	2.5000	24	48	Y	3	8	0	0	0	1	3	9
71-18	1	M	2.5000	25	49	Y	7	3	0	0	0	0	7	3
71-18	1	M	2.5000	25	50	Y	10	4	0	0	0	0	10	4
71-18	1	M	2.5000	26	51	Y	9	5	0	0	0	0	7	7
71-18	1	M	2.5000	26	52	Y	4	8	0	0	0	0	5	8
71-18	1	M	2.5000	27	53	Y	7	4	0	0	0	0	7	4
71-18	1	M	2.5000	27	54	Y	5	6	0	0	0	0	5	6
71-18	1	M	2.5000	28	55	Y	7	6	0	0	0	0	7	6
71-18	1	M	2.5000	28	56	Y	6	5	0	0	0	0	7	5
71-18	1	M	2.5000	29	57	Y	5	9	0	0	0	0	5	9
71-18	1	M	2.5000	29	58	N	0	0	0	0	0	0	0	0
71-18	1	M	2.5000	30	59	Y	6	9	0	0	0	0	6	9
71-18	1	M	2.5000	30	60	Y	5	6	0	0	0	0	5	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	1	M	5.0000	31	61	Y	8	6	0	0	2	3	8	6
71-18	1	M	5.0000	31	62	Y	3	7	0	0	0	0	3	9
71-18	1	M	5.0000	32	63	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	32	64	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	33	65	Y	7	7	0	0	0	0	7	7
71-18	1	M	5.0000	33	66	Y	7	6	0	0	0	0	7	6
71-18	1	M	5.0000	34	67	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	34	69	Y	1	9	0	1	0	0	3	10
71-18	1	M	5.0000	35	69	Y	4	7	0	0	1	0	4	7
71-18	1	M	5.0000	35	70	Y	12	5	0	0	0	0	12	5
71-18	1	M	5.0000	36	71	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	36	72	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	37	73	Y	9	3	0	0	2	0	9	3
71-18	1	M	5.0000	37	74	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	38	75	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	38	76	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	39	77	Y	6	8	0	0	0	1	6	8
71-18	1	M	5.0000	39	78	N	0	0	0	0	0	0	0	0
71-18	1	M	5.0000	40	79	Y	4	9	0	0	0	0	4	10
71-18	1	M	5.0000	40	80	Y	4	6	0	0	0	0	9	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
CNTRL18	2	S	0.0000	1	1	Y	3	7	0	0	0	1	3	7
CNTRL18	2	S	0.0000	1	2	Y	8	5	0	0	1	0	8	6
CNTRL18	2	S	0.0000	2	3	Y	7	9	0	0	0	0	7	9
CNTRL18	2	S	0.0000	2	4	Y	7	6	0	0	0	0	7	6
CNTRL18	2	S	0.0000	3	5	Y	2	8	1	1	0	0	2	8
CNTRL18	2	S	0.0000	3	6	Y	1	1	0	0	0	0	1	7
CNTRL18	2	S	0.0000	4	7	Y	2	9	0	1	0	0	2	9
CNTRL18	2	S	0.0000	4	8	Y	5	5	0	0	0	1	5	7
CNTRL18	2	S	0.0000	5	9	Y	7	7	0	0	0	0	7	7
CNTRL18	2	S	0.0000	5	10	Y	6	7	0	0	1	2	6	7
CNTRL18	2	S	0.0000	6	11	Y	5	9	0	0	0	0	5	9
CNTRL18	2	S	0.0000	6	12	Y	8	7	0	0	0	0	13	11
CNTRL18	2	S	0.0000	7	13	Y	7	4	0	0	0	0	7	4
CNTRL18	2	S	0.0000	7	14	Y	3	11	0	0	0	0	3	11
CNTRL18	2	S	0.0000	8	15	Y	5	5	0	0	0	0	6	5
CNTRL18	2	S	0.0000	8	16	Y	5	6	0	0	0	0	6	6
CNTRL18	2	S	0.0000	9	17	Y	5	5	0	0	1	0	5	5
CNTRL18	2	S	0.0000	9	18	Y	2	5	0	0	0	0	2	9
CNTRL18	2	S	0.0000	10	19	Y	5	9	0	1	0	0	5	9
CNTRL18	2	S	0.0000	10	20	Y	0	1	0	0	0	0	5	7
71-18	2	S	.0300	21	41	Y	6	6	0	0	0	0	6	6
71-18	2	S	.0300	21	42	Y	5	9	0	0	0	0	5	9
71-18	2	S	.0300	22	43	Y	1	10	0	0	0	1	1	11
71-18	2	S	.0300	22	44	Y	6	4	0	0	0	0	6	4
71-18	2	S	.0300	23	45	Y	7	5	0	0	0	0	7	5
71-18	2	S	.0300	23	46	Y	5	4	0	0	0	0	7	5
71-18	2	S	.0300	24	47	Y	2	8	0	0	0	0	4	8
71-18	2	S	.0300	24	48	Y	6	7	0	0	0	0	6	7
71-18	2	S	.0300	25	49	Y	11	4	0	0	2	0	11	4
71-18	2	S	.0300	25	50	Y	5	6	0	0	1	0	6	6
71-18	2	S	.0300	26	51	Y	7	3	0	0	0	0	7	3
71-18	2	S	.0300	26	52	Y	7	5	0	0	0	0	7	6
71-18	2	S	.0300	27	53	Y	6	6	0	0	2	2	6	6
71-18	2	S	.0300	27	54	Y	6	6	0	0	1	0	8	7
71-18	2	S	.0300	28	55	Y	5	6	0	0	0	2	5	6
71-18	2	S	.0300	28	56	Y	3	9	0	0	0	0	3	10
71-18	2	S	.0300	29	57	Y	4	2	0	0	0	0	6	5
71-18	2	S	.0300	29	58	Y	6	6	0	1	0	0	6	6
71-18	2	S	.0300	30	59	Y	4	7	0	2	1	2	4	7
71-18	2	S	.0300	30	60	Y	3	7	0	0	0	0	6	7

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	2	S	2.5000	31	61	Y	6	6	0	0	0	0	6	6
71-18	2	S	2.5000	31	62	N	0	0	0	0	0	0	0	0
71-18	2	S	2.5000	32	63	Y	6	6	0	1	2	0	6	6
71-18	2	S	2.5000	32	64	Y	7	5	0	0	1	0	8	5
71-18	2	S	2.5000	33	65	Y	5	7	0	0	0	0	5	7
71-18	2	S	2.5000	33	66	Y	8	4	0	1	0	0	9	4
71-18	2	S	2.5000	34	67	Y	7	5	0	0	1	0	7	6
71-18	2	S	2.5000	34	69	Y	4	5	0	0	0	0	6	6
71-18	2	S	2.5000	35	69	Y	9	6	0	0	0	0	9	6
71-18	2	S	2.5000	35	70	Y	6	8	0	0	0	0	6	9
71-18	2	S	2.5000	36	71	Y	6	5	0	0	0	0	6	5
71-18	2	S	2.5000	36	72	Y	3	8	0	0	0	0	3	10
71-18	2	S	2.5000	37	73	Y	4	7	0	0	0	0	4	7
71-18	2	S	2.5000	37	74	Y	3	9	0	0	0	0	3	9
71-18	2	S	2.5000	38	75	Y	6	6	1	0	0	0	6	7
71-18	2	S	2.5000	38	76	Y	7	8	0	0	0	0	7	8
71-18	2	S	2.5000	39	77	Y	0	12	0	0	0	0	0	12
71-18	2	S	2.5000	39	78	Y	3	7	0	0	0	0	3	7
71-18	2	S	2.5000	40	79	Y	0	5	0	0	0	0	8	6
71-18	2	S	2.5000	40	80	Y	6	6	0	0	1	2	7	6
71-18	2	S	5.0000	41	81	Y	0	2	0	0	0	0	3	8
71-18	2	S	5.0000	41	82	Y	7	6	0	0	0	0	7	6
71-18	2	S	5.0000	42	83	Y	6	6	1	0	0	0	7	6
71-18	2	S	5.0000	42	84	Y	6	7	0	0	0	0	6	7
71-18	2	S	5.0000	43	85	Y	4	8	0	0	0	0	5	8
71-18	2	S	5.0000	43	86	Y	8	5	0	0	0	0	8	5
71-18	2	S	5.0000	44	87	Y	6	6	0	0	0	0	6	6
71-18	2	S	5.0000	44	88	Y	4	7	0	0	0	0	4	7
71-18	2	S	5.0000	45	89	Y	4	7	1	1	0	2	4	7
71-18	2	S	5.0000	45	90	Y	8	7	0	0	0	0	8	7
71-18	2	S	5.0000	46	91	Y	6	6	4	3	0	1	6	6
71-18	2	S	5.0000	46	92	Y	7	10	3	2	0	1	7	10
71-18	2	S	5.0000	47	93	Y	3	7	0	0	0	0	3	7
71-18	2	S	5.0000	47	94	Y	8	6	0	0	0	0	8	6
71-18	2	S	5.0000	48	95	Y	5	9	1	3	0	0	5	9
71-18	2	S	5.0000	48	96	Y	9	3	0	0	0	0	10	3
71-18	2	S	5.0000	49	97	Y	10	7	0	0	0	0	10	9
71-18	2	S	5.0000	49	98	Y	7	5	0	0	0	0	7	5
71-18	2	S	5.0000	50	99	Y	6	7	0	0	0	0	7	9
71-18	2	S	5.0000	50	100	Y	5	6	0	0	0	0	5	6

DOMINANT LETHAL GENE STUDY OF COMPOUND 71-18

PROPYLENE GLYCOL ALGINATE

PAGE 8

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
TEM18	2	S	.0002	11	21	Y	5	4	1	1	2	0	5	4
TEM18	2	S	.0002	11	22	Y	3	7	3	6	0	0	6	8
TEM18	2	S	.0002	12	23	Y	4	3	0	0	4	3	5	5
TEM18	2	S	.0002	12	24	Y	4	4	4	4	0	0	8	6
TEM18	2	S	.0002	13	25	Y	4	3	0	0	4	1	5	3
TEM18	2	S	.0002	13	26	Y	4	7	3	6	0	0	5	9
TEM18	2	S	.0002	14	27	Y	6	5	6	5	0	0	7	6
TEM18	2	S	.0002	14	28	Y	4	5	4	4	0	0	4	8
TEM18	2	S	.0002	15	29	Y	3	7	2	3	0	0	3	7
TEM18	2	S	.0002	15	30	Y	6	0	5	0	0	0	9	5
TEM18	2	S	.0002	16	31	Y	2	2	2	2	0	0	6	5
TEM18	2	S	.0002	16	32	N	0	0	0	0	0	0	0	0
TEM18	2	S	.0002	17	33	Y	4	5	0	2	3	3	4	5
TEM18	2	S	.0002	17	34	Y	1	3	0	1	1	2	4	7
TEM18	2	S	.0002	18	35	Y	3	3	6	3	0	0	8	4
TEM18	2	S	.0002	18	36	Y	4	3	4	3	0	0	7	5
TEM18	2	S	.0002	19	37	Y	6	4	0	0	4	2	6	4
TEM18	2	S	.0002	19	38	Y	4	4	3	3	0	0	5	7
TEM18	2	S	.0002	20	39	Y	5	3	5	3	0	0	7	4
TEM18	2	S	.0002	20	40	Y	3	9	3	9	0	0	3	11
CNTRL18	2	M	0.0000	1	1	Y	3	7	0	0	0	1	3	7
CNTRL18	2	M	0.0000	1	2	Y	8	5	0	0	1	0	8	6
CNTRL18	2	M	0.0000	2	3	Y	7	9	0	0	0	0	7	9
CNTRL18	2	M	0.0000	2	4	Y	7	6	0	0	0	0	7	6
CNTRL18	2	M	0.0000	3	5	Y	2	8	1	1	0	0	2	8
CNTRL18	2	M	0.0000	3	6	Y	1	1	0	0	0	0	1	7
CNTRL18	2	M	0.0000	4	7	Y	2	9	0	1	0	0	2	9
CNTRL18	2	M	0.0000	4	8	Y	5	5	0	0	0	1	5	7
CNTRL18	2	M	0.0000	5	9	Y	7	7	0	0	0	0	7	7
CNTRL18	2	M	0.0000	5	10	Y	6	7	0	0	1	2	6	7
CNTRL18	2	M	0.0000	6	11	Y	5	9	0	0	0	0	5	9
CNTRL18	2	M	0.0000	6	12	Y	8	7	0	0	0	0	13	11
CNTRL18	2	M	0.0000	7	13	Y	7	4	0	0	0	0	7	4
CNTRL18	2	M	0.0000	7	14	Y	3	11	0	0	0	0	3	11
CNTRL18	2	M	0.0000	8	15	Y	6	5	0	0	0	0	6	5
CNTRL18	2	M	0.0000	8	16	Y	5	6	0	0	0	0	6	6
CNTRL18	2	M	0.0000	9	17	Y	5	5	0	0	1	0	5	5
CNTRL18	2	M	0.0000	9	18	Y	2	5	0	0	0	0	2	9
CNTRL18	2	M	0.0000	10	19	Y	5	9	0	1	0	0	5	9
CNTRL18	2	M	0.0000	10	20	Y	0	1	0	0	0	0	5	7

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	2	M	.0300	11	21	Y	7	3	2	0	0	0	9	3
71-18	2	M	.0300	11	22	Y	7	6	0	0	0	0	8	6
71-18	2	M	.0300	12	23	Y	7	6	0	0	1	0	8	7
71-18	2	M	.0300	12	24	N	0	0	0	0	0	0	0	0
71-18	2	M	.0300	13	25	Y	7	7	0	0	0	0	7	7
71-18	2	M	.0300	13	26	Y	4	9	1	0	0	0	5	9
71-18	2	M	.0300	14	27	Y	4	8	0	0	0	0	4	8
71-18	2	M	.0300	14	28	Y	5	8	0	0	1	0	6	8
71-18	2	M	.0300	15	29	Y	6	5	0	0	0	0	7	6
71-18	2	M	.0300	15	30	N	0	0	0	0	0	0	0	0
71-18	2	M	.0300	16	31	Y	3	10	0	0	0	0	4	12
71-18	2	M	.0300	16	32	Y	4	2	0	0	0	1	4	8
71-18	2	M	.0300	17	33	Y	7	3	1	0	0	0	7	5
71-18	2	M	.0300	17	34	Y	9	5	0	0	0	0	9	6
71-18	2	M	.0300	18	35	Y	2	9	0	0	0	0	2	9
71-18	2	M	.0300	18	36	Y	3	8	0	0	0	0	3	11
71-18	2	M	.0300	19	37	Y	7	4	0	0	0	0	8	4
71-18	2	M	.0300	19	38	Y	4	8	0	0	0	0	4	11
71-18	2	M	.0300	20	39	Y	5	10	0	0	0	0	5	10
71-18	2	M	.0300	20	40	Y	6	6	0	0	0	0	6	8
71-18	2	M	2.5000	21	41	Y	7	5	1	0	0	0	7	5
71-18	2	M	2.5000	21	42	Y	7	6	1	0	0	0	7	6
71-18	2	M	2.5000	22	43	Y	8	6	1	3	0	0	8	6
71-18	2	M	2.5000	22	44	Y	8	6	0	0	0	0	8	6
71-18	2	M	2.5000	23	45	Y	7	5	0	0	0	0	7	5
71-18	2	M	2.5000	23	46	Y	6	7	0	0	0	0	6	7
71-18	2	M	2.5000	24	47	Y	3	9	0	0	0	0	3	9
71-18	2	M	2.5000	24	48	Y	5	3	0	0	0	0	5	4
71-18	2	M	2.5000	25	49	Y	2	10	0	0	0	0	3	12
71-18	2	M	2.5000	25	50	Y	6	5	0	0	0	0	6	5
71-18	2	M	2.5000	26	51	Y	1	0	0	0	0	0	2	9
71-18	2	M	2.5000	26	52	Y	7	5	0	0	0	0	7	5
71-18	2	M	2.5000	27	53	Y	1	11	0	0	1	0	3	12
71-18	2	M	2.5000	27	54	Y	6	5	0	1	3	1	8	7
71-18	2	M	2.5000	28	55	Y	4	6	0	0	0	0	4	8
71-18	2	M	2.5000	28	56	Y	8	6	0	0	0	0	8	6
71-18	2	M	2.5000	29	57	Y	7	4	0	2	0	0	9	6
71-18	2	M	2.5000	29	58	N	0	0	0	0	0	0	0	0
71-18	2	M	2.5000	30	59	Y	6	7	0	0	0	0	6	8
71-18	2	M	2.5000	30	60	Y	7	3	0	0	0	0	7	4

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	2	M	5.0000	31	61	Y	5	1	0	1	0	0	5	6
71-18	2	M	5.0000	31	62	Y	8	4	0	0	2	0	8	6
71-18	2	M	5.0000	32	63	Y	6	6	0	0	1	0	6	7
71-18	2	M	5.0000	32	64	Y	0	4	0	1	0	0	2	10
71-18	2	M	5.0000	33	65	Y	4	6	0	1	0	0	5	6
71-18	2	M	5.0000	33	66	Y	6	4	0	1	0	0	6	4
71-18	2	M	5.0000	34	67	Y	3	10	0	0	0	1	4	11
71-18	2	M	5.0000	34	68	Y	6	7	0	0	0	0	7	7
71-18	2	M	5.0000	35	69	Y	8	4	0	0	0	0	8	4
71-18	2	M	5.0000	35	70	Y	7	3	0	0	1	0	10	4
71-18	2	M	5.0000	36	71	Y	0	2	0	0	0	0	6	6
71-18	2	M	5.0000	36	72	N	0	0	0	0	0	0	0	0
71-18	2	M	5.0000	37	73	Y	4	8	0	0	0	0	4	9
71-18	2	M	5.0000	37	74	Y	8	6	4	0	0	0	8	6
71-18	2	M	5.0000	38	75	Y	7	5	0	0	0	0	7	7
71-18	2	M	5.0000	38	76	Y	4	8	0	0	0	0	4	9
71-18	2	M	5.0000	39	77	Y	8	5	0	0	1	0	8	5
71-18	2	M	5.0000	39	78	Y	5	6	0	0	0	0	5	6
71-18	2	M	5.0000	40	79	Y	8	9	1	0	0	0	12	13
71-18	2	M	5.0000	40	80	Y	5	6	0	1	0	0	5	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
CNTRL18	3	S	0.0000	1	1	Y	1	5	0	1	0	0	7	6
CNTRL18	3	S	0.0000	1	2	Y	7	8	1	1	0	0	7	8
CNTRL18	3	S	0.0000	2	3	Y	4	7	0	0	0	0	4	8
CNTRL18	3	S	0.0000	2	4	Y	6	4	0	0	0	0	6	5
CNTRL18	3	S	0.0000	3	5	Y	8	3	0	0	1	0	8	3
CNTRL18	3	S	0.0000	3	6	Y	7	6	0	0	1	2	8	6
CNTRL18	3	S	0.0000	4	7	Y	8	2	1	0	0	0	8	3
CNTRL18	3	S	0.0000	4	8	Y	8	4	1	0	0	0	4	8
CNTRL18	3	S	0.0000	5	9	Y	4	3	1	0	1	0	4	7
CNTRL18	3	S	0.0000	5	10	Y	4	6	0	0	0	0	4	6
CNTRL18	3	S	0.0000	6	11	Y	5	8	1	0	0	0	5	8
CNTRL18	3	S	0.0000	6	12	Y	7	6	0	0	0	0	7	6
CNTRL18	3	S	0.0000	7	13	Y	1	8	0	0	0	0	1	9
CNTRL18	3	S	0.0000	7	14	Y	6	6	0	0	1	0	6	7
CNTRL18	3	S	0.0000	8	15	Y	6	5	0	0	0	0	6	7
CNTRL18	3	S	0.0000	8	15	Y	6	5	0	0	0	0	8	11
CNTRL18	3	S	0.0000	9	17	Y	3	6	1	2	0	0	3	7
CNTRL18	3	S	0.0000	9	18	Y	3	1	1	1	0	0	4	6
CNTRL18	3	S	0.0000	10	19	Y	6	6	0	0	0	0	6	6
CNTRL18	3	S	0.0000	10	20	Y	4	6	0	0	0	0	4	7
71-18	3	S	.0300	21	41	Y	4	7	0	1	0	0	4	7
71-18	3	S	.0300	21	42	N	0	0	0	0	0	0	0	0
71-18	3	S	.0300	22	43	Y	5	7	0	0	0	0	5	7
71-18	3	S	.0300	22	44	Y	7	6	0	1	0	0	7	6
71-18	3	S	.0300	23	45	Y	3	6	0	1	0	0	3	9
71-18	3	S	.0300	23	46	Y	6	5	0	0	1	1	7	6
71-18	3	S	.0300	24	47	Y	3	7	1	1	0	0	4	7
71-18	3	S	.0300	24	48	Y	1	0	0	0	0	0	5	8
71-18	3	S	.0300	25	49	Y	4	7	0	0	0	0	4	7
71-18	3	S	.0300	25	50	Y	7	6	0	0	0	0	7	6
71-18	3	S	.0300	26	51	Y	9	4	0	0	2	2	10	4
71-18	3	S	.0300	26	52	Y	4	8	0	0	0	0	4	8
71-18	3	S	.0300	27	53	Y	7	6	0	0	0	0	7	6
71-18	3	S	.0300	27	54	Y	7	5	0	0	0	0	7	5
71-18	3	S	.0300	28	55	Y	7	5	0	0	0	0	9	6
71-18	3	S	.0300	28	55	Y	8	2	0	0	0	0	9	2
71-18	3	S	.0300	29	57	Y	3	5	0	0	0	1	5	5
71-18	3	S	.0300	29	58	Y	6	8	0	0	1	0	8	8
71-18	3	S	.0300	30	59	Y	4	5	0	0	0	0	4	8
71-18	3	S	.0300	30	60	Y	7	3	0	0	0	0	9	3

DOMINANT LETHAL GENE STUDY OF COMPOUND 71-18

PROPYLENE GLYCOL ALGINATE

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TEST MATERIAL	WEEK	S/M	DOSE	MALE		FEMALE	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
				NO.	NO.			L	R	L	R	L	R	L	R
71-18	3	S	2.5000	31	61	Y	3	4	1	1	0	0	5	7	
71-18	3	S	2.5000	31	62	Y	4	8	0	0	0	0	6	12	
71-18	3	S	2.5000	32	63	Y	7	6	0	0	4	2	6	7	
71-18	3	S	2.5000	32	64	Y	4	9	1	0	0	0	5	9	
71-18	3	S	2.5000	33	65	Y	3	6	0	0	0	0	5	6	
71-18	3	S	2.5000	33	66	N	0	0	0	0	0	0	0	0	
71-18	3	S	2.5000	34	67	Y	5	5	0	0	0	0	16	6	
71-18	3	S	2.5000	34	68	Y	5	6	2	2	0	0	5	7	
71-18	3	S	2.5000	35	69	Y	6	5	0	0	0	0	6	5	
71-18	3	S	2.5000	35	70	Y	6	4	0	0	0	0	6	4	
71-18	3	S	2.5000	36	71	N	0	0	0	0	0	0	0	0	
71-18	3	S	2.5000	36	72	N	0	0	0	0	0	0	0	0	
71-18	3	S	2.5000	37	73	Y	7	7	1	2	0	0	7	7	
71-18	3	S	2.5000	37	74	Y	6	5	0	0	0	0	7	5	
71-18	3	S	2.5000	38	75	Y	8	4	1	0	0	0	11	4	
71-18	3	S	2.5000	38	76	Y	7	4	1	0	0	0	7	4	
71-18	3	S	2.5000	39	77	Y	6	5	0	0	0	0	6	5	
71-18	3	S	2.5000	39	78	Y	6	7	0	0	0	0	6	7	
71-18	3	S	2.5000	40	79	Y	5	5	0	0	0	0	5	5	
71-18	3	S	2.5000	40	80	Y	4	7	0	0	0	0	5	7	
71-18	3	S	5.0000	41	81	Y	4	5	0	0	0	0	6	5	
71-18	3	S	5.0000	41	82	Y	5	6	0	0	0	0	5	7	
71-18	3	S	5.0000	42	83	Y	8	6	0	0	0	0	8	6	
71-18	3	S	5.0000	42	84	Y	7	5	0	0	0	0	7	5	
71-18	3	S	5.0000	43	85	Y	6	7	0	0	0	0	6	7	
71-18	3	S	5.0000	43	86	Y	5	7	0	0	0	1	5	8	
71-18	3	S	5.0000	44	87	Y	8	4	0	2	0	0	8	4	
71-18	3	S	5.0000	44	88	Y	8	5	0	0	0	0	8	5	
71-18	3	S	5.0000	45	89	Y	6	6	0	0	0	0	6	7	
71-18	3	S	5.0000	45	90	Y	6	4	1	2	1	1	6	4	
71-18	3	S	5.0000	46	91	Y	5	6	0	0	3	2	6	7	
71-18	3	S	5.0000	46	92	Y	3	3	0	1	1	0	4	7	
71-18	3	S	5.0000	47	93	Y	7	4	0	0	0	0	7	4	
71-18	3	S	5.0000	47	94	Y	0	4	0	1	0	0	7	5	
71-18	3	S	5.0000	48	95	Y	4	4	0	0	0	0	6	6	
71-18	3	S	5.0000	48	96	Y	5	6	0	0	0	0	6	6	
71-18	3	S	5.0000	49	97	Y	5	8	0	0	0	1	5	8	
71-18	3	S	5.0000	49	98	Y	4	8	0	0	0	1	4	8	
71-18	3	S	5.0000	50	99	Y	6	5	0	1	0	0	7	5	
71-18	3	S	5.0000	50	100	Y	3	4	0	0	0	0	6	7	

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
TEM18	3	S	.0002	11	21	Y	2	4	0	0	1	1	3	7
TEM18	3	S	.0002	11	22	Y	4	8	4	8	0	0	4	9
TEM18	3	S	.0002	12	23	Y	6	7	5	5	0	0	6	7
TEM18	3	S	.0002	12	24	Y	4	4	4	4	0	0	6	7
TEM18	3	S	.0002	13	25	Y	7	2	0	0	7	2	10	3
TEM18	3	S	.0002	13	26	Y	8	1	6	1	1	0	8	1
TEM18	3	S	.0002	14	27	Y	7	3	7	2	0	0	8	4
TEM18	3	S	.0002	14	28	Y	5	3	5	3	0	0	8	5
TEM18	3	S	.0002	15	29	Y	4	7	3	5	0	0	5	7
TEM18	3	S	.0002	15	30	Y	4	9	2	5	0	0	4	10
TEM18	3	S	.0002	16	31	Y	1	1	1	1	0	0	5	8
TEM18	3	S	.0002	16	32	Y	2	0	2	0	0	0	8	5
TEM18	3	S	.0002	17	33	Y	3	4	3	4	0	0	7	5
TEM18	3	S	.0002	17	34	Y	4	9	3	5	0	0	4	10
TEM18	3	S	.0002	18	35	Y	5	4	5	4	0	0	5	7
TEM18	3	S	.0002	18	35	Y	3	3	3	3	0	0	6	8
TEM18	3	S	.0002	19	37	Y	5	5	5	5	0	0	6	6
TEM18	3	S	.0002	19	38	Y	3	4	0	0	3	4	7	4
TEM18	3	S	.0002	20	39	Y	1	3	1	3	0	0	4	7
TEM18	3	S	.0002	20	40	Y	7	4	4	3	1	0	7	6
CNTRL18	3	M	0.0000	1	1	Y	1	5	0	1	0	0	7	6
CNTRL18	3	M	0.0000	1	2	Y	7	8	1	1	0	0	7	8
CNTRL18	3	M	0.0000	2	3	Y	4	7	0	0	0	0	4	8
CNTRL18	3	M	0.0000	2	4	Y	6	4	0	0	0	0	6	5
CNTRL18	3	M	0.0000	3	5	Y	8	3	0	0	1	0	8	3
CNTRL18	3	M	0.0000	3	6	Y	7	6	0	0	1	2	8	6
CNTRL18	3	M	0.0000	4	7	Y	8	2	1	0	0	0	8	3
CNTRL18	3	M	0.0000	4	8	Y	8	4	1	0	0	0	4	8
CNTRL18	3	M	0.0000	5	9	Y	4	3	1	0	1	0	4	7
CNTRL18	3	M	0.0000	5	10	Y	4	6	0	0	0	0	4	6
CNTRL18	3	M	0.0000	6	11	Y	5	8	1	0	0	0	5	8
CNTRL18	3	M	0.0000	6	12	Y	7	6	0	0	0	0	7	6
CNTRL18	3	M	0.0000	7	13	Y	1	8	0	0	0	0	1	9
CNTRL18	3	M	0.0000	7	14	Y	6	6	0	0	1	0	6	7
CNTRL18	3	M	0.0000	8	15	Y	6	5	0	0	0	0	6	7
CNTRL18	3	M	0.0000	8	16	Y	6	5	0	0	0	0	8	11
CNTRL18	3	M	0.0000	9	17	Y	3	6	1	2	0	0	3	7
CNTRL18	3	M	0.0000	9	18	Y	3	1	1	1	0	0	4	6
CNTRL18	3	M	0.0000	10	19	Y	6	6	0	0	0	0	6	6
CNTRL18	3	M	0.0000	10	20	Y	4	6	0	0	0	0	4	7

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	3	M	.0300	11	21	Y	7	8	1	0	0	0	7	8
71-18	3	M	.0300	11	22	Y	7	6	0	0	0	0	7	6
71-18	3	M	.0300	12	23	N	0	0	0	0	0	0	0	0
71-18	3	M	.0300	12	24	Y	5	8	1	2	0	0	5	8
71-18	3	M	.0300	13	25	Y	5	8	0	0	0	0	5	8
71-18	3	M	.0300	13	26	Y	7	5	0	0	0	0	7	5
71-18	3	M	.0300	14	27	N	0	0	0	0	0	0	0	0
71-18	3	M	.0300	14	28	Y	7	5	0	0	0	0	7	5
71-18	3	M	.0300	15	29	Y	5	10	0	0	0	1	5	11
71-18	3	M	.0300	15	30	Y	7	5	0	1	0	0	7	5
71-18	3	M	.0300	16	31	Y	5	6	0	0	0	0	5	6
71-18	3	M	.0300	16	32	Y	5	8	0	0	0	0	5	8
71-18	3	M	.0300	17	33	Y	8	5	0	1	0	0	8	6
71-18	3	M	.0300	17	34	Y	9	6	1	1	0	0	9	6
71-18	3	M	.0300	18	35	Y	6	8	1	0	1	0	6	8
71-18	3	M	.0300	18	36	Y	3	9	0	1	0	0	3	9
71-18	3	M	.0300	19	37	Y	9	6	1	0	0	0	10	6
71-18	3	M	.0300	19	38	Y	5	6	1	0	0	0	7	6
71-18	3	M	.0300	20	39	Y	5	6	0	0	0	0	5	7
71-18	3	M	.0300	20	40	Y	8	8	1	1	0	0	8	9
71-18	3	M	2.5000	21	41	Y	8	6	0	1	0	0	8	6
71-18	3	M	2.5000	21	42	Y	5	5	0	0	0	0	6	5
71-18	3	M	2.5000	22	43	Y	5	7	2	0	0	0	5	7
71-18	3	M	2.5000	22	44	Y	6	6	0	1	0	0	6	6
71-18	3	M	2.5000	23	45	Y	2	7	0	0	0	0	3	8
71-18	3	M	2.5000	23	46	Y	5	1	0	0	0	0	9	1
71-18	3	M	2.5000	24	47	Y	5	7	0	0	0	0	5	7
71-18	3	M	2.5000	24	48	Y	9	2	0	0	0	0	10	2
71-18	3	M	2.5000	25	49	Y	6	6	0	0	0	0	6	6
71-18	3	M	2.5000	25	50	Y	6	5	1	0	0	0	7	5
71-18	3	M	2.5000	26	51	Y	9	2	0	0	0	0	11	2
71-18	3	M	2.5000	26	52	Y	6	6	0	0	0	1	7	7
71-18	3	M	2.5000	27	53	Y	8	4	0	0	0	0	9	4
71-18	3	M	2.5000	27	54	Y	5	9	1	0	0	0	6	9
71-18	3	M	2.5000	28	55	Y	8	1	1	0	0	0	11	1
71-18	3	M	2.5000	28	56	Y	8	5	0	0	0	0	8	5
71-18	3	M	2.5000	29	57	Y	2	10	0	0	0	0	2	10
71-18	3	M	2.5000	29	58	Y	5	0	1	0	0	0	6	7
71-18	3	M	2.5000	30	59	Y	3	6	0	0	0	0	3	6
71-18	3	M	2.5000	30	60	Y	9	2	0	0	0	0	9	3

DOMINANT LETHAL GENE STUDY OF COMPOUND 71-18

PROPYLENE GLYCOL ALGINATE

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TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	3	M	5.0000	31	61	Y	6	4	1	0	0	1	6	5
71-18	3	M	5.0000	31	62	Y	10	4	0	0	2	2	10	4
71-18	3	M	5.0000	32	63	N	0	0	0	0	0	0	0	0
71-18	3	M	5.0000	32	64	Y	3	9	0	0	0	1	3	9
71-18	3	M	5.0000	33	65	Y	11	3	0	0	0	0	11	3
71-18	3	M	5.0000	33	66	Y	4	8	0	0	0	0	4	10
71-18	3	M	5.0000	34	67	Y	8	6	0	0	0	0	8	6
71-18	3	M	5.0000	34	68	Y	5	7	0	0	0	0	5	7
71-18	3	M	5.0000	35	69	Y	6	7	1	0	0	0	6	7
71-18	3	M	5.0000	35	70	Y	4	7	0	0	0	0	5	7
71-18	3	M	5.0000	36	71	Y	5	5	0	0	0	0	5	5
71-18	3	M	5.0000	36	72	N	0	0	0	0	0	0	0	0
71-18	3	M	5.0000	37	73	Y	9	3	1	0	0	0	9	4
71-18	3	M	5.0000	37	74	Y	3	0	3	0	0	0	8	4
71-18	3	M	5.0000	38	75	Y	2	0	0	0	0	0	7	5
71-18	3	M	5.0000	38	76	Y	5	3	0	0	0	0	6	3
71-18	3	M	5.0000	39	77	Y	7	4	0	0	0	0	7	4
71-18	3	M	5.0000	39	78	Y	5	7	0	0	0	0	5	7
71-18	3	M	5.0000	40	79	Y	4	9	0	0	0	1	4	10
71-18	3	M	5.0000	40	80	Y	4	7	0	0	0	0	5	9

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
CNTRL18	4	S	0.0000	1	1	Y	5	6	1	0	0	0	8	7
CNTRL18	4	S	0.0000	1	2	Y	6	7	0	0	0	0	6	7
CNTRL18	4	S	0.0000	2	3	Y	3	11	0	2	2	0	3	11
CNTRL18	4	S	0.0000	2	4	Y	1	1	0	0	0	0	3	7
CNTRL18	4	S	0.0000	3	5	Y	4	8	0	0	2	2	4	10
CNTRL18	4	S	0.0000	3	6	Y	6	3	0	0	1	0	7	6
CNTRL18	4	S	0.0000	4	7	Y	5	2	0	0	1	0	9	4
CNTRL18	4	S	0.0000	4	8	Y	5	10	0	0	0	0	5	10
CNTRL18	4	S	0.0000	5	9	Y	6	6	0	0	0	0	6	7
CNTRL18	4	S	0.0000	5	10	Y	7	7	0	0	0	1	7	7
CNTRL18	4	S	0.0000	6	11	Y	8	4	0	0	0	0	8	4
CNTRL18	4	S	0.0000	6	12	Y	7	5	0	0	0	0	8	5
CNTRL18	4	S	0.0000	7	13	Y	7	4	0	0	0	0	7	4
CNTRL18	4	S	0.0000	7	14	Y	8	6	0	0	1	0	8	6
CNTRL18	4	S	0.0000	8	15	Y	8	6	0	0	0	0	8	6
CNTRL18	4	S	0.0000	8	16	Y	4	9	0	0	0	2	5	10
CNTRL18	4	S	0.0000	9	17	Y	6	5	0	0	0	1	7	5
CNTRL18	4	S	0.0000	9	18	Y	7	4	0	0	0	0	8	4
CNTRL18	4	S	0.0000	10	19	Y	6	7	0	0	0	0	6	7
CNTRL18	4	S	0.0000	10	20	Y	7	3	0	0	0	0	7	3
71-18	4	S	.0300	21	41	Y	4	9	0	0	0	1	4	10
71-18	4	S	.0300	21	42	Y	3	9	1	0	0	0	3	10
71-18	4	S	.0300	22	43	Y	5	8	1	0	0	0	5	8
71-18	4	S	.0300	22	44	Y	5	8	0	1	0	0	5	8
71-18	4	S	.0300	23	45	Y	8	3	0	0	0	1	8	3
71-18	4	S	.0300	23	46	Y	4	7	0	0	0	0	4	9
71-18	4	S	.0300	24	47	Y	5	9	0	2	0	0	5	9
71-18	4	S	.0300	24	48	Y	6	4	0	0	0	0	7	4
71-18	4	S	.0300	25	49	Y	6	6	0	1	0	0	6	6
71-18	4	S	.0300	25	50	Y	5	3	0	0	0	0	6	4
71-18	4	S	.0300	26	51	Y	9	2	0	0	1	0	9	2
71-18	4	S	.0300	26	52	Y	7	5	0	0	3	2	7	5
71-18	4	S	.0300	27	53	Y	0	1	0	0	0	0	4	6
71-18	4	S	.0300	27	54	Y	3	6	0	0	1	0	5	6
71-18	4	S	.0300	28	55	Y	0	7	0	0	0	0	3	8
71-18	4	S	.0300	28	56	Y	6	6	0	0	2	0	6	7
71-18	4	S	.0300	29	57	Y	5	6	0	0	0	0	6	6
71-18	4	S	.0300	29	58	Y	5	5	0	0	0	0	5	5
71-18	4	S	.0300	30	59	Y	7	6	0	0	0	0	7	7
71-18	4	S	.0300	30	60	Y	4	8	0	2	0	0	4	8

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	4	S	2.5000	31	61	Y	7	4	0	0	0	0	14	11
71-18	4	S	2.5000	31	62	Y	5	8	1	0	0	4	5	8
71-18	4	S	2.5000	32	63	Y	2	3	0	1	0	0	5	4
71-18	4	S	2.5000	32	64	Y	4	9	0	1	0	0	4	10
71-18	4	S	2.5000	33	65	Y	7	5	1	0	0	0	8	5
71-18	4	S	2.5000	33	66	Y	2	9	0	0	0	0	2	9
71-18	4	S	2.5000	34	67	Y	3	10	0	3	2	1	3	10
71-18	4	S	2.5000	34	68	Y	5	6	1	1	0	0	5	6
71-18	4	S	2.5000	35	69	Y	4	7	0	1	0	0	4	8
71-18	4	S	2.5000	35	70	Y	3	8	0	0	0	0	3	8
71-18	4	S	2.5000	36	71	Y	7	7	0	1	0	0	7	7
71-18	4	S	2.5000	36	72	Y	12	2	1	0	0	1	12	2
71-18	4	S	2.5000	37	73	Y	6	2	1	0	0	0	6	8
71-18	4	S	2.5000	37	74	Y	6	6	0	0	0	0	6	6
71-18	4	S	2.5000	38	75	Y	4	6	1	3	0	0	5	6
71-18	4	S	2.5000	38	76	Y	6	6	0	0	1	1	6	6
71-18	4	S	2.5000	39	77	Y	7	5	0	0	2	1	7	6
71-18	4	S	2.5000	39	78	Y	4	7	1	0	0	0	5	9
71-18	4	S	2.5000	40	79	Y	2	4	1	0	0	0	3	8
71-18	4	S	2.5000	40	80	Y	5	5	0	0	0	1	5	5
71-18	4	S	5.0000	41	81	Y	1	6	0	0	0	0	5	6
71-18	4	S	5.0000	41	82	Y	8	3	0	0	0	0	9	3
71-18	4	S	5.0000	42	83	Y	4	7	0	2	0	0	4	7
71-18	4	S	5.0000	42	84	N	0	0	0	0	0	0	0	0
71-18	4	S	5.0000	43	85	Y	7	4	0	0	3	0	7	4
71-18	4	S	5.0000	43	86	Y	4	5	0	0	0	1	5	5
71-18	4	S	5.0000	44	87	N	0	0	0	0	0	0	0	0
71-18	4	S	5.0000	44	88	Y	5	6	0	0	0	2	7	8
71-18	4	S	5.0000	45	89	Y	4	8	0	1	0	0	6	9
71-18	4	S	5.0000	45	90	Y	3	10	0	0	0	0	3	10
71-18	4	S	5.0000	46	91	Y	5	5	4	1	0	0	6	6
71-18	4	S	5.0000	46	92	Y	4	8	0	8	1	0	4	8
71-18	4	S	5.0000	47	93	Y	6	4	0	0	0	0	8	4
71-18	4	S	5.0000	47	94	Y	5	5	1	0	0	0	5	5
71-18	4	S	5.0000	48	95	Y	5	6	0	0	0	0	6	6
71-18	4	S	5.0000	48	96	Y	1	4	0	0	0	2	4	10
71-18	4	S	5.0000	49	97	Y	6	5	0	0	0	0	6	8
71-18	4	S	5.0000	49	98	Y	9	7	0	0	1	0	9	7
71-18	4	S	5.0000	50	99	Y	5	5	0	1	0	0	6	5
71-18	4	S	5.0000	50	100	Y	3	8	0	0	1	1	3	10

DOMINANT LETHAL GENE STUDY OF COMPOUND 71-18

PROPYLENE GLYCOL ALGINATE

PAGE 18

TFST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
TEM18	4	S	.0002	11	21	Y	1	1	0	0	1	1	3	9
TEM18	4	S	.0002	11	22	Y	2	2	2	2	0	0	8	4
TEM18	4	S	.0002	12	23	Y	2	1	2	1	0	0	7	4
TEM18	4	S	.0002	12	24	Y	2	2	2	2	0	0	11	3
TEM18	4	S	.0002	13	25	Y	0	2	0	2	0	0	8	12
TEM18	4	S	.0002	13	26	Y	4	4	4	4	0	0	7	4
TEM18	4	S	.0002	14	27	Y	3	2	3	2	0	0	6	4
TEM18	4	S	.0002	14	28	Y	2	5	1	5	0	0	5	8
TEM18	4	S	.0002	15	29	Y	1	4	1	3	0	0	1	10
TEM18	4	S	.0002	15	30	Y	0	1	0	1	0	0	5	7
TEM18	4	S	.0002	16	31	Y	1	1	1	1	0	0	5	7
TEM18	4	S	.0002	16	32	Y	0	2	0	2	0	0	5	12
TEM18	4	S	.0002	17	33	Y	1	1	0	1	1	0	8	8
TEM18	4	S	.0002	17	34	Y	2	0	1	0	1	0	7	4
TEM18	4	S	.0002	18	35	N	0	0	0	0	0	0	0	0
TEM18	4	S	.0002	18	36	Y	1	1	1	1	0	0	6	6
TEM18	4	S	.0002	19	37	Y	3	0	3	0	0	0	5	3
TEM18	4	S	.0002	19	38	Y	0	2	0	2	0	0	7	8
TEM18	4	S	.0002	20	39	N	0	0	0	0	0	0	0	0
TEM18	4	S	.0002	20	40	Y	2	2	0	0	2	2	5	5
CNTRL18	4	M	0.0000	1	1	Y	5	6	1	0	0	0	8	7
CNTRL18	4	M	0.0000	1	2	Y	6	7	0	0	0	0	6	7
CNTRL18	4	M	0.0000	2	3	Y	3	11	0	2	2	0	3	11
CNTRL18	4	M	0.0000	2	4	Y	1	1	0	0	0	0	3	7
CNTRL18	4	M	0.0000	3	5	Y	4	8	0	0	2	2	4	10
CNTRL18	4	M	0.0000	3	6	Y	6	3	0	0	1	0	7	6
CNTRL18	4	M	0.0000	4	7	Y	5	2	0	0	1	0	9	4
CNTRL18	4	M	0.0000	4	8	Y	5	10	0	0	0	0	5	10
CNTRL18	4	M	0.0000	5	9	Y	6	6	0	0	0	0	6	7
CNTRL18	4	M	0.0000	5	10	Y	7	7	0	0	0	1	7	7
CNTRL18	4	M	0.0000	6	11	Y	8	4	0	0	0	0	8	4
CNTRL18	4	M	0.0000	6	12	Y	7	5	3	0	0	0	8	5
CNTRL18	4	M	0.0000	7	13	Y	7	4	0	0	0	0	7	4
CNTRL18	4	M	0.0000	7	14	Y	8	6	0	0	1	0	8	6
CNTRL18	4	M	0.0000	8	15	Y	8	6	0	0	0	0	8	6
CNTRL18	4	M	0.0000	8	16	Y	4	9	0	0	0	2	5	10
CNTRL18	4	M	0.0000	9	17	Y	6	5	0	0	0	1	7	5
CNTRL18	4	M	0.0000	9	18	Y	7	4	0	0	0	0	8	4
CNTRL18	4	M	0.0000	10	19	Y	6	7	0	0	0	0	6	7
CNTRL18	4	M	0.0000	10	20	Y	7	3	0	0	0	0	7	3

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	4	M	.0300	11	21	Y	6	4	0	0	1	0	6	5
71-18	4	M	.0300	11	22	Y	3	9	0	0	0	1	3	9
71-18	4	M	.0300	12	23	Y	7	4	0	0	0	0	8	4
71-18	4	M	.0300	12	24	Y	6	7	0	0	1	0	7	8
71-18	4	M	.0300	13	25	Y	4	9	0	0	0	0	4	9
71-18	4	M	.0300	13	26	Y	3	0	0	0	0	0	6	7
71-18	4	M	.0300	14	27	Y	5	6	0	0	0	0	5	6
71-18	4	M	.0300	14	28	Y	6	6	0	0	0	0	7	6
71-18	4	M	.0300	15	29	Y	8	2	0	0	1	0	8	2
71-18	4	M	.0300	15	30	Y	7	6	0	0	0	0	7	6
71-18	4	M	.0300	16	31	Y	8	4	1	0	0	0	8	5
71-18	4	M	.0300	16	32	Y	8	5	0	0	2	0	13	6
71-18	4	M	.0300	17	33	Y	10	0	0	0	0	0	10	2
71-18	4	M	.0300	17	34	Y	0	1	0	0	0	1	6	8
71-18	4	M	.0300	18	35	Y	4	6	0	0	0	0	7	6
71-18	4	M	.0300	18	36	Y	6	7	0	0	0	0	6	7
71-18	4	M	.0300	19	37	Y	6	5	0	0	0	0	9	5
71-18	4	M	.0300	19	38	Y	7	3	0	1	0	0	7	4
71-18	4	M	.0300	20	39	Y	6	6	0	1	0	0	6	6
71-18	4	M	.0300	20	40	Y	5	4	0	0	0	0	5	5
71-18	4	M	2.5000	21	41	Y	4	8	0	0	0	0	4	8
71-18	4	M	2.5000	21	42	Y	9	4	0	0	0	0	11	5
71-18	4	M	2.5000	22	43	Y	8	3	0	0	8	3	8	4
71-18	4	M	2.5000	22	44	Y	4	7	0	0	1	3	4	7
71-18	4	M	2.5000	23	45	Y	7	4	0	0	0	0	7	4
71-18	4	M	2.5000	23	46	Y	7	6	0	1	0	0	7	6
71-18	4	M	2.5000	24	47	Y	11	1	0	0	0	0	11	1
71-18	4	M	2.5000	24	48	Y	5	6	0	0	0	0	5	6
71-18	4	M	2.5000	25	49	Y	0	2	0	0	0	1	9	4
71-18	4	M	2.5000	25	50	Y	6	4	0	0	0	0	7	4
71-18	4	M	2.5000	26	51	Y	3	8	0	0	0	0	3	8
71-18	4	M	2.5000	26	52	Y	5	4	0	0	0	1	5	5
71-18	4	M	2.5000	27	53	Y	6	7	0	0	0	0	6	7
71-18	4	M	2.5000	27	54	Y	2	7	0	0	0	0	3	7
71-18	4	M	2.5000	28	55	Y	4	7	0	0	0	0	5	7
71-18	4	M	2.5000	28	56	Y	4	7	0	0	0	0	4	8
71-18	4	M	2.5000	29	57	Y	2	0	2	0	0	0	3	6
71-18	4	M	2.5000	29	58	Y	5	6	1	0	0	0	5	8
71-18	4	M	2.5000	30	59	Y	4	6	0	1	0	0	4	7
71-18	4	M	2.5000	30	60	Y	3	8	0	0	0	0	4	10

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	4	M	5.0000	31	61	Y	5	6	0	0	0	1	5	6
71-18	4	M	5.0000	31	62	N	0	0	0	0	0	0	0	0
71-18	4	M	5.0000	32	63	N	0	0	0	0	0	0	0	0
71-18	4	M	5.0000	32	64	Y	6	7	0	0	2	3	7	8
71-18	4	M	5.0000	33	65	Y	3	9	0	0	0	0	3	9
71-18	4	M	5.0000	33	66	Y	4	6	0	0	1	0	4	7
71-18	4	M	5.0000	34	67	Y	5	9	1	0	2	1	5	10
71-18	4	M	5.0000	34	68	Y	8	6	0	0	0	0	8	6
71-18	4	M	5.0000	35	69	Y	3	6	0	0	0	0	4	7
71-18	4	M	5.0000	35	70	N	0	0	0	0	0	0	0	0
71-18	4	M	5.0000	36	71	Y	5	5	0	0	0	0	5	6
71-18	4	M	5.0000	36	72	Y	10	3	0	0	5	0	10	3
71-18	4	M	5.0000	37	73	Y	5	9	0	0	0	0	5	10
71-18	4	M	5.0000	37	74	Y	4	10	0	0	0	0	4	10
71-18	4	M	5.0000	38	75	Y	7	5	0	0	0	0	7	5
71-18	4	M	5.0000	38	76	Y	6	6	0	0	0	0	6	6
71-18	4	M	5.0000	39	77	Y	6	7	0	0	1	0	6	7
71-18	4	M	5.0000	39	78	Y	7	7	1	1	0	0	7	7
71-18	4	M	5.0000	40	79	Y	6	6	2	0	0	0	6	6
71-18	4	M	5.0000	40	80	Y	9	2	0	0	0	0	10	2

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	P	L	R	L	R	L	R
CNTRL18	5	S	0.0000	1	1	Y	5	7	0	0	0	0	7	7
CNTRL18	5	S	0.0000	1	2	Y	11	4	0	0	1	0	11	4
CNTRL18	5	S	0.0000	2	3	Y	5	6	0	0	0	0	5	6
CNTRL18	5	S	0.0000	2	4	Y	1	2	0	0	0	2	1	13
CNTRL18	5	S	0.0000	3	5	Y	5	6	0	1	0	0	5	6
CNTRL18	5	S	0.0000	3	6	Y	7	3	0	0	0	0	8	3
CNTRL18	5	S	0.0000	4	7	Y	6	6	0	1	1	0	6	7
CNTRL18	5	S	0.0000	4	8	Y	2	7	0	0	0	1	2	10
CNTRL18	5	S	0.0000	5	9	Y	8	2	0	1	0	0	8	4
CNTRL18	5	S	0.0000	5	10	Y	5	8	0	1	0	1	5	8
CNTRL18	5	S	0.0000	6	11	Y	4	6	0	0	0	0	5	6
CNTRL18	5	S	0.0000	6	12	Y	2	6	0	2	0	0	3	9
CNTRL18	5	S	0.0000	7	13	Y	6	5	0	0	0	0	6	5
CNTRL18	5	S	0.0000	7	14	Y	8	3	0	0	1	0	9	3
CNTRL18	5	S	0.0000	8	15	Y	4	10	0	0	0	0	4	10
CNTRL18	5	S	0.0000	8	16	Y	5	7	0	0	0	0	5	7
CNTRL18	5	S	0.0000	9	17	Y	3	7	0	0	0	0	3	7
CNTRL18	5	S	0.0000	9	18	Y	4	5	0	0	0	0	4	7
CNTRL18	5	S	0.0000	10	19	Y	9	5	0	0	1	0	9	5
CNTRL18	5	S	0.0000	10	20	Y	3	6	0	0	0	1	5	6
71-18	5	S	.0300	21	41	Y	5	7	0	1	0	0	5	7
71-18	5	S	.0300	21	42	Y	4	9	0	0	0	0	4	10
71-18	5	S	.0300	22	43	Y	5	6	0	0	0	2	6	6
71-18	5	S	.0300	22	44	Y	1	2	0	0	0	0	8	3
71-18	5	S	.0300	23	45	Y	6	7	0	0	0	0	6	8
71-18	5	S	.0300	23	46	Y	6	6	0	1	0	0	6	6
71-18	5	S	.0300	24	47	Y	4	8	1	0	0	0	5	9
71-18	5	S	.0300	24	48	Y	4	8	0	0	0	0	4	8
71-18	5	S	.0300	25	49	Y	3	8	0	0	0	0	3	8
71-18	5	S	.0300	25	50	Y	5	5	0	1	0	1	5	5
71-18	5	S	.0300	26	51	Y	5	11	0	1	2	1	5	11
71-18	5	S	.0300	26	52	N	0	0	0	0	0	0	0	0
71-18	5	S	.0300	27	53	Y	6	5	0	0	0	1	6	5
71-18	5	S	.0300	27	54	Y	8	6	0	1	1	0	8	6
71-18	5	S	.0300	28	55	Y	7	6	0	0	0	0	7	6
71-18	5	S	.0300	28	56	Y	3	9	0	1	0	0	4	9
71-18	5	S	.0300	29	57	Y	6	6	0	0	0	0	7	6
71-18	5	S	.0300	29	58	Y	7	8	0	0	1	0	7	8
71-18	5	S	.0300	30	59	Y	5	8	0	0	0	0	5	8
71-18	5	S	.0300	30	60	Y	5	3	1	1	0	1	6	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
TEM18	5	S	.0002	11	21	Y	7	9	0	0	0	0	7	9
TEM18	5	S	.0002	11	22	Y	6	5	1	1	0	0	6	5
TEM18	5	S	.0002	12	23	Y	5	5	0	0	1	1	5	6
TEM18	5	S	.0002	12	24	Y	3	2	2	2	0	0	6	7
TEM18	5	S	.0002	13	25	Y	2	0	2	0	0	0	9	3
TEM18	5	S	.0002	13	26	Y	5	4	0	0	1	0	6	4
TEM18	5	S	.0002	14	27	Y	2	4	0	0	0	1	3	9
TEM18	5	S	.0002	14	28	Y	5	5	0	3	0	0	5	6
TEM18	5	S	.0002	15	29	Y	7	3	0	0	2	2	7	3
TEM18	5	S	.0002	15	30	Y	8	5	0	0	1	1	8	5
TEM18	5	S	.0002	16	31	Y	6	4	2	3	0	0	6	6
TEM18	5	S	.0002	16	32	N	0	0	0	0	0	0	0	0
TEM18	5	S	.0002	17	33	Y	7	4	3	3	1	1	8	6
TEM18	5	S	.0002	17	34	Y	4	7	2	4	0	0	7	8
TEM18	5	S	.0002	18	35	Y	5	3	2	0	0	1	7	4
TEM18	5	S	.0002	18	36	Y	6	5	0	1	3	1	7	5
TEM18	5	S	.0002	19	37	Y	4	6	1	1	0	0	5	7
TEM18	5	S	.0002	19	38	Y	4	8	0	1	2	4	4	8
TEM18	5	S	.0002	20	39	Y	5	6	1	0	0	1	5	7
TEM18	5	S	.0002	20	40	Y	5	10	1	2	0	0	5	10
CNTRL18	5	M	0.0000	1	1	Y	5	7	0	0	0	0	7	7
CNTRL18	5	M	0.0000	1	2	Y	11	4	0	0	1	0	11	4
CNTRL18	5	M	0.0000	2	3	Y	5	6	0	0	0	0	5	6
CNTRL18	5	M	0.0000	2	4	Y	1	2	0	0	0	2	1	13
CNTRL18	5	M	0.0000	3	5	Y	5	6	0	1	0	0	5	6
CNTRL18	5	M	0.0000	3	6	Y	7	3	0	0	0	0	8	3
CNTRL18	5	M	0.0000	4	7	Y	6	6	0	1	1	0	6	7
CNTRL18	5	M	0.0000	4	8	Y	2	7	0	0	0	1	2	10
CNTRL18	5	M	0.0000	5	9	Y	8	2	0	1	0	0	8	4
CNTRL18	5	M	0.0000	5	10	Y	5	8	0	1	0	1	5	8
CNTRL18	5	M	0.0000	6	11	Y	4	6	0	0	0	0	5	6
CNTRL18	5	M	0.0000	6	12	Y	2	6	0	2	0	0	3	9
CNTRL18	5	M	0.0000	7	13	Y	4	5	0	0	0	0	6	5
CNTRL18	5	M	0.0000	7	14	Y	8	3	0	0	1	0	9	3
CNTRL18	5	M	0.0000	8	15	Y	4	10	0	0	0	0	4	10
CNTRL18	5	M	0.0000	8	16	Y	5	7	0	0	0	0	5	7
CNTRL18	5	M	0.0000	9	17	Y	3	7	0	0	0	0	3	7
CNTRL18	5	M	0.0000	9	18	Y	4	5	0	0	0	0	4	7
CNTRL18	5	M	0.0000	10	19	Y	9	5	0	0	1	0	9	5
CNTRL18	5	M	0.0000	10	20	Y	3	6	0	0	0	1	5	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	5	M	.0300	11	21	Y	1	9	0	1	0	0	1	9
71-18	5	M	.0300	11	22	Y	0	3	0	0	0	0	6	9
71-18	5	M	.0300	12	23	Y	7	5	0	0	0	0	7	6
71-18	5	M	.0300	12	24	Y	5	5	1	0	0	0	6	7
71-18	5	M	.0300	13	25	Y	4	10	0	0	0	0	4	10
71-18	5	M	.0300	13	26	Y	5	8	0	0	0	0	6	9
71-18	5	M	.0300	14	27	Y	7	4	0	0	0	0	7	4
71-18	5	M	.0300	14	28	Y	6	9	0	1	0	0	6	9
71-18	5	M	.0300	15	29	Y	8	4	0	0	0	0	8	4
71-18	5	M	.0300	15	30	Y	6	6	0	0	0	0	6	6
71-18	5	M	.0300	16	31	Y	5	7	0	0	0	0	6	8
71-18	5	M	.0300	16	32	Y	7	9	0	0	0	0	7	9
71-18	5	M	.0300	17	33	Y	5	2	0	1	1	1	11	9
71-18	5	M	.0300	17	34	Y	9	8	0	0	0	0	9	8
71-18	5	M	.0300	18	35	Y	7	6	0	0	0	0	7	6
71-18	5	M	.0300	18	36	Y	6	6	1	1	0	0	6	6
71-18	5	M	.0300	19	37	Y	7	7	0	2	0	0	7	7
71-18	5	M	.0300	19	38	Y	7	9	0	0	0	0	7	9
71-18	5	M	.0300	20	39	N	0	0	0	0	0	0	0	0
71-18	5	M	.0300	20	40	Y	6	8	0	0	0	0	6	9
71-18	5	M	2.5000	21	41	Y	7	5	0	0	0	0	7	5
71-18	5	M	2.5000	21	42	Y	4	6	0	0	0	0	4	7
71-18	5	M	2.5000	22	43	Y	5	9	0	2	2	1	6	9
71-18	5	M	2.5000	22	44	Y	8	3	0	0	0	0	8	3
71-18	5	M	2.5000	23	45	Y	5	9	0	0	0	0	5	9
71-18	5	M	2.5000	23	46	Y	7	3	0	0	0	0	7	6
71-18	5	M	2.5000	24	47	Y	3	4	1	2	0	0	4	8
71-18	5	M	2.5000	24	48	Y	0	1	0	0	0	0	4	10
71-18	5	M	2.5000	25	49	Y	6	6	0	0	0	1	6	7
71-18	5	M	2.5000	25	50	Y	5	1	2	1	0	0	8	5
71-18	5	M	2.5000	26	51	Y	4	7	1	0	0	0	6	7
71-18	5	M	2.5000	26	52	Y	9	5	1	0	0	0	9	5
71-18	5	M	2.5000	27	53	Y	5	9	0	1	0	0	5	9
71-18	5	M	2.5000	27	54	Y	6	8	0	2	0	0	6	8
71-18	5	M	2.5000	28	55	Y	5	11	0	0	0	0	5	11
71-18	5	M	2.5000	28	56	Y	8	3	1	0	0	0	8	9
71-18	5	M	2.5000	29	57	Y	5	4	0	0	0	0	8	9
71-18	5	M	2.5000	29	58	Y	2	1	0	0	0	0	6	6
71-18	5	M	2.5000	30	59	Y	5	7	0	0	0	0	5	7
71-18	5	M	2.5000	30	60	Y	7	7	0	0	0	0	9	9

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	5	F	5.0000	31	61	Y	1	10	0	2	0	0	1	10
71-18	5	M	5.0000	31	62	Y	7	6	1	0	0	0	7	8
71-18	5	M	5.0000	32	63	Y	5	4	0	1	0	0	6	5
71-18	5	M	5.0000	32	64	Y	3	10	0	0	0	0	8	11
71-18	5	M	5.0000	33	65	Y	6	5	0	0	1	0	6	6
71-18	5	M	5.0000	33	66	Y	6	7	0	0	0	1	6	8
71-18	5	M	5.0000	34	67	Y	6	7	0	0	0	2	7	7
71-18	5	M	5.0000	34	68	Y	8	4	0	0	0	1	8	4
71-18	5	M	5.0000	35	69	Y	2	0	0	0	0	0	5	9
71-18	5	M	5.0000	35	70	Y	6	7	0	1	0	0	6	7
71-18	5	M	5.0000	36	71	Y	7	5	0	0	0	0	7	5
71-18	5	M	5.0000	36	72	Y	5	9	0	0	1	3	5	9
71-18	5	M	5.0000	37	73	Y	4	10	0	0	0	1	4	10
71-18	5	M	5.0000	37	74	Y	7	4	0	0	0	0	8	8
71-18	5	F	5.0000	38	75	Y	7	7	0	1	0	0	7	7
71-18	5	M	5.0000	38	76	Y	7	3	0	0	0	0	9	3
71-18	5	M	5.0000	39	77	Y	4	7	0	0	0	0	4	7
71-18	5	M	5.0000	39	78	Y	9	4	0	0	0	0	10	4
71-18	5	M	5.0000	40	79	Y	7	5	0	0	0	1	8	5
71-18	5	M	5.0000	40	80	Y	7	6	0	0	0	0	7	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	P	L	R	L	R
CNTRL18	6	S	0.0000	1	1	Y	6	5	0	0	0	0	7	5
CNTRL18	6	S	0.0000	1	2	Y	3	9	0	1	0	0	3	10
CNTRL18	6	S	0.0000	2	3	Y	4	11	0	1	0	1	4	11
CNTRL18	6	S	0.0000	2	4	Y	1	2	1	0	0	1	6	7
CNTRL18	6	S	0.0000	3	5	Y	5	8	0	0	0	0	7	8
CNTRL18	6	S	0.0000	3	6	Y	5	4	0	0	2	0	5	6
CNTRL18	6	S	0.0000	4	7	Y	5	3	0	0	0	0	5	9
CNTRL18	6	S	0.0000	4	8	Y	7	5	0	0	0	0	7	5
CNTRL18	6	S	0.0000	5	9	Y	6	10	0	1	0	0	7	10
CNTRL18	6	S	0.0000	5	10	Y	7	4	0	0	1	1	7	5
CNTRL18	6	S	0.0000	6	11	Y	6	6	0	0	3	1	6	6
CNTRL18	6	S	0.0000	6	12	Y	4	8	0	1	0	2	4	8
CNTRL18	6	S	0.0000	7	13	Y	3	9	0	0	0	0	3	10
CNTRL18	6	S	0.0000	7	14	Y	5	8	0	0	0	0	6	9
CNTRL18	6	S	0.0000	8	15	Y	8	6	0	0	0	0	8	6
CNTRL18	6	S	0.0000	8	16	Y	6	8	0	0	1	2	6	8
CNTRL18	6	S	0.0000	9	17	Y	6	6	0	0	0	0	6	7
CNTRL18	6	S	0.0000	9	18	Y	7	5	0	0	0	0	7	5
CNTRL18	6	S	0.0000	10	19	Y	6	6	1	0	0	0	6	6
CNTRL18	6	S	0.0000	10	20	Y	9	4	0	1	0	0	9	4
71-18	6	S	.0300	21	41	Y	7	5	0	0	0	1	8	5
71-18	6	S	.0300	21	42	Y	7	6	1	0	0	0	7	9
71-18	6	S	.0300	22	43	N	0	0	0	0	0	0	0	0
71-18	6	S	.0300	22	44	Y	4	7	1	0	0	1	4	7
71-18	6	S	.0300	23	45	Y	3	7	0	0	1	0	4	7
71-18	6	S	.0300	23	46	Y	6	8	2	0	0	0	6	8
71-18	6	S	.0300	24	47	Y	6	7	1	0	0	0	6	8
71-18	6	S	.0300	24	48	Y	3	9	1	0	0	0	3	10
71-18	6	S	.0300	25	49	Y	5	4	0	0	0	0	5	4
71-18	6	S	.0300	25	50	Y	6	6	0	0	0	0	7	7
71-18	6	S	.0300	26	51	Y	11	7	0	0	0	0	11	7
71-18	6	S	.0300	26	52	Y	3	10	0	3	0	0	4	10
71-18	6	S	.0300	27	53	Y	4	8	0	0	0	0	5	9
71-18	6	S	.0300	27	54	Y	5	5	0	0	4	2	5	5
71-18	6	S	.0300	28	55	Y	8	6	0	0	3	3	9	6
71-18	6	S	.0300	28	56	Y	8	4	0	1	2	0	9	4
71-18	6	S	.0300	29	57	Y	8	3	0	0	1	0	9	3
71-18	6	S	.0300	29	58	Y	1	3	0	1	0	0	4	9
71-18	6	S	.0300	30	59	Y	8	6	2	2	1	1	8	6
71-18	6	S	.0300	30	60	Y	0	6	0	1	0	0	6	10

TFST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	6	S	2.5000	31	61	Y	6	6	0	0	0	3	6	6
71-18	6	S	2.5000	31	62	Y	6	8	0	1	3	4	5	9
71-18	6	S	2.5000	32	63	Y	7	8	0	0	0	1	7	8
71-18	6	S	2.5000	32	64	Y	8	4	0	0	0	0	8	4
71-18	6	S	2.5000	33	65	Y	4	8	0	0	0	0	4	8
71-18	6	S	2.5000	33	66	Y	6	8	0	0	0	0	6	8
71-18	6	S	2.5000	34	67	Y	5	8	0	0	0	0	5	8
71-18	6	S	2.5000	34	68	Y	5	3	0	0	0	0	6	4
71-18	6	S	2.5000	35	69	Y	3	9	0	0	0	0	3	9
71-18	6	S	2.5000	35	70	Y	9	2	2	0	0	0	9	3
71-18	6	S	2.5000	36	71	Y	6	6	0	0	0	0	6	8
71-18	6	S	2.5000	36	72	Y	10	6	1	0	0	0	10	6
71-18	6	S	2.5000	37	73	Y	5	10	0	1	0	0	6	10
71-18	6	S	2.5000	37	74	Y	8	4	0	0	0	0	8	4
71-18	6	S	2.5000	38	75	Y	4	8	2	0	0	0	4	9
71-18	6	S	2.5000	38	76	Y	5	7	1	1	0	0	5	7
71-18	6	S	2.5000	39	77	Y	7	6	0	0	0	0	7	6
71-18	6	S	2.5000	39	78	Y	4	8	0	0	2	2	4	8
71-18	6	S	2.5000	40	79	Y	2	2	0	0	0	0	7	5
71-18	6	S	2.5000	40	80	Y	3	6	0	0	0	0	4	9
71-18	6	S	5.0000	41	81	Y	0	2	0	0	0	1	2	3
71-18	6	S	5.0000	41	82	Y	5	7	0	0	1	1	5	7
71-18	6	S	5.0000	42	83	Y	6	6	0	0	0	0	7	6
71-18	6	S	5.0000	42	84	Y	9	6	0	0	0	0	9	7
71-18	6	S	5.0000	43	85	Y	7	6	0	0	0	0	7	6
71-18	6	S	5.0000	43	86	Y	5	8	1	0	0	0	5	9
71-18	6	S	5.0000	44	87	Y	7	7	0	0	0	0	7	7
71-18	6	S	5.0000	44	88	Y	4	9	0	0	0	0	4	9
71-18	6	S	5.0000	45	89	Y	7	6	0	0	0	0	7	6
71-18	6	S	5.0000	45	90	Y	8	6	0	0	0	2	9	6
71-18	6	S	5.0000	46	91	Y	7	6	1	3	1	0	7	8
71-18	6	S	5.0000	46	92	Y	9	3	0	0	1	0	9	3
71-18	6	S	5.0000	47	93	Y	6	5	0	0	0	0	6	5
71-18	6	S	5.0000	47	94	Y	6	6	0	0	0	0	8	5
71-18	6	S	5.0000	48	95	Y	5	8	0	0	0	0	5	8
71-18	6	S	5.0000	48	96	Y	6	7	0	0	0	0	6	7
71-18	6	S	5.0000	49	97	Y	6	7	1	0	0	0	6	7
71-18	6	S	5.0000	49	98	Y	4	9	0	0	0	0	4	9
71-18	6	S	5.0000	50	99	Y	3	7	0	0	0	0	3	9
71-18	6	S	5.0000	50	100	Y	3	10	0	0	0	0	3	10

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	P	L	R	L	R
TEM18	6	S	.0002	11	21	Y	7	6	0	0	0	0	7	7
TEM18	6	S	.0002	11	22	Y	4	5	0	1	0	0	6	6
TEM18	6	S	.0002	12	23	Y	6	6	0	1	0	1	8	6
TEM18	6	S	.0002	12	24	Y	7	7	0	0	1	0	8	7
TEM18	6	S	.0002	13	25	Y	6	5	0	2	1	0	6	7
TEM18	6	S	.0002	13	26	Y	3	7	0	0	0	0	3	7
TEM18	6	S	.0002	14	27	Y	5	5	0	1	0	0	6	5
TEM18	6	S	.0002	14	28	Y	6	9	4	3	0	0	7	9
TEM18	6	S	.0002	15	29	Y	6	4	0	0	1	0	6	4
TEM18	6	S	.0002	15	30	Y	8	3	0	0	1	0	10	3
TEM18	6	S	.0002	16	31	Y	7	4	2	2	0	0	9	4
TEM18	6	S	.0002	16	32	Y	6	5	1	1	0	0	6	5
TEM18	6	S	.0002	17	33	Y	8	5	3	1	2	1	8	5
TEM18	6	S	.0002	17	34	Y	3	10	0	1	1	1	3	11
TEM18	6	S	.0002	18	35	Y	4	4	1	0	0	0	5	7
TEM18	6	S	.0002	18	36	Y	6	6	1	2	0	0	7	8
TEM18	6	S	.0002	19	37	Y	5	7	0	0	0	0	5	7
TEM18	6	S	.0002	19	38	Y	4	7	0	2	0	0	5	7
TEM18	6	S	.0002	20	39	Y	7	3	0	1	0	0	7	5
TEM18	6	S	.0002	20	40	Y	7	4	0	1	0	0	7	4
CNTRL18	6	M	0.0000	1	1	Y	6	5	0	0	0	0	7	5
CNTRL18	6	M	0.0000	1	2	Y	3	9	0	1	0	0	3	10
CNTRL18	6	M	0.0000	2	3	Y	4	11	6	1	0	1	4	11
CNTRL18	6	M	0.0000	2	4	Y	1	2	1	0	0	1	6	7
CNTRL18	6	M	0.0000	3	5	Y	5	8	0	0	0	0	7	8
CNTRL18	6	M	0.0000	3	6	Y	5	4	0	0	2	0	6	6
CNTRL18	6	M	0.0000	4	7	Y	5	3	0	0	0	0	5	9
CNTRL18	6	M	0.0000	4	8	Y	7	5	0	0	0	0	7	5
CNTRL18	6	M	0.0000	5	9	Y	6	10	0	1	0	0	7	10
CNTRL18	6	M	0.0000	5	10	Y	7	4	0	0	1	1	7	5
CNTRL18	6	M	0.0000	6	11	Y	6	6	0	0	3	1	6	6
CNTRL18	6	M	0.0000	6	12	Y	4	8	0	1	0	2	4	8
CNTRL18	6	M	0.0000	7	13	Y	3	9	0	0	0	0	3	10
CNTRL18	6	M	0.0000	7	14	Y	5	8	0	0	0	0	6	9
CNTRL18	6	M	0.0000	8	15	Y	8	6	0	0	0	0	8	6
CNTRL18	6	M	0.0000	8	16	Y	6	8	0	0	1	2	6	8
CNTRL18	6	M	0.0000	9	17	Y	6	6	0	0	0	0	6	7
CNTRL18	6	M	0.0000	9	18	Y	7	5	0	0	0	0	7	5
CNTRL18	6	M	0.0000	10	19	Y	6	6	1	0	0	0	6	6
CNTRL18	6	M	0.0000	10	20	Y	9	4	0	1	0	0	9	4

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	6	M	.0300	11	21	Y	5	9	0	0	0	0	5	8
71-18	6	M	.0300	11	22	Y	6	6	0	0	0	0	6	6
71-18	6	M	.0300	12	23	Y	5	3	2	1	1	0	13	8
71-18	6	M	.0300	12	24	Y	0	7	0	0	0	0	5	8
71-18	6	M	.0300	13	25	Y	8	6	0	0	0	0	8	6
71-18	6	M	.0300	13	26	Y	8	7	1	1	1	1	8	7
71-18	6	M	.0300	14	27	Y	6	7	0	0	0	0	7	9
71-18	6	M	.0300	14	28	Y	6	4	0	0	0	0	7	4
71-18	6	M	.0300	15	29	Y	6	5	0	0	0	0	6	5
71-18	6	M	.0300	15	30	Y	1	0	1	0	0	0	6	4
71-18	6	M	.0300	16	31	Y	3	8	0	2	0	0	4	9
71-18	6	M	.0300	16	32	Y	4	6	0	1	0	0	4	6
71-18	6	M	.0300	17	33	Y	11	5	1	0	0	0	11	6
71-18	6	M	.0300	17	34	Y	7	7	2	4	0	0	9	7
71-18	6	M	.0300	18	35	Y	8	4	0	0	0	1	8	4
71-18	6	M	.0300	18	36	Y	3	8	0	0	0	0	3	8
71-18	6	M	.0300	19	37	Y	10	8	0	1	0	0	10	8
71-18	6	M	.0300	19	38	Y	6	8	0	0	0	0	6	8
71-18	6	M	.0300	20	39	Y	6	8	0	0	0	0	6	8
71-18	6	M	.0300	20	40	Y	6	7	0	0	0	0	6	7
71-18	6	M	2.5000	21	41	Y	3	3	0	0	0	0	4	7
71-18	6	M	2.5000	21	42	Y	6	6	0	1	0	0	6	6
71-18	6	M	2.5000	22	43	Y	4	8	0	0	1	2	4	8
71-18	6	M	2.5000	22	44	Y	7	5	1	0	0	0	8	6
71-18	6	M	2.5000	23	45	Y	9	5	1	1	0	0	9	5
71-18	6	M	2.5000	23	46	Y	5	7	0	0	0	0	5	9
71-18	6	M	2.5000	24	47	Y	4	8	0	0	0	0	4	9
71-18	6	M	2.5000	24	48	Y	5	9	0	0	0	0	6	9
71-18	6	M	2.5000	25	49	Y	6	6	0	1	0	0	6	7
71-18	6	M	2.5000	25	50	Y	7	3	1	0	0	0	9	3
71-18	6	M	2.5000	26	51	Y	5	5	0	0	0	1	7	5
71-18	6	M	2.5000	26	52	Y	4	5	1	0	0	0	5	7
71-18	6	M	2.5000	27	53	Y	6	5	0	1	0	1	6	5
71-18	6	M	2.5000	27	54	Y	4	7	0	0	0	0	4	7
71-18	6	M	2.5000	28	55	Y	7	4	0	1	0	0	8	5
71-18	6	M	2.5000	28	56	Y	5	8	1	0	0	0	5	8
71-18	6	M	2.5000	29	57	Y	5	6	0	0	0	1	5	6
71-18	6	M	2.5000	29	58	Y	7	7	1	0	0	1	7	7
71-18	6	M	2.5000	30	59	Y	5	6	0	0	0	0	5	8
71-18	6	M	2.5000	30	60	Y	7	5	0	0	0	0	7	5

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	6	M	5.0000	31	61	Y	7	3	0	0	0	0	7	3
71-18	6	M	5.0000	31	62	Y	7	5	0	0	0	1	7	5
71-18	6	M	5.0000	32	63	Y	5	7	0	0	0	0	5	7
71-18	6	M	5.0000	32	64	Y	3	7	0	1	0	0	4	8
71-18	6	M	5.0000	33	65	Y	5	8	0	0	0	1	6	9
71-18	6	M	5.0000	33	66	Y	0	1	0	0	0	0	4	7
71-18	6	M	5.0000	34	67	Y	6	4	1	0	0	0	6	5
71-18	6	M	5.0000	34	69	Y	7	5	1	0	1	0	7	5
71-18	6	M	5.0000	35	69	Y	1	3	0	0	0	0	6	5
71-18	6	M	5.0000	35	70	Y	7	6	1	1	0	0	7	6
71-18	6	M	5.0000	36	71	Y	5	6	0	1	0	1	6	6
71-18	6	M	5.0000	36	72	Y	5	5	1	0	0	1	5	6
71-18	6	M	5.0000	37	73	Y	8	4	0	0	2	2	8	4
71-18	6	M	5.0000	37	74	Y	6	0	2	0	1	0	11	5
71-18	6	M	5.0000	38	75	Y	8	5	0	0	0	0	9	5
71-18	6	M	5.0000	38	76	Y	5	6	0	0	1	0	5	7
71-18	6	M	5.0000	39	77	Y	4	0	0	0	0	0	4	8
71-18	6	M	5.0000	39	78	Y	7	4	0	0	1	1	7	4
71-18	6	M	5.0000	40	79	Y	7	5	0	0	0	0	7	5
71-18	6	M	5.0000	40	80	Y	6	5	0	0	0	0	6	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
CNTRL18	7	S	0.0000	1	1	Y	7	7	0	1	0	0	7	7
CNTRL18	7	S	0.0000	1	2	Y	4	9	0	2	0	0	4	9
CNTRL18	7	S	0.0000	2	3	Y	6	6	0	0	0	0	8	6
CNTRL18	7	S	0.0000	2	4	Y	4	7	1	1	0	0	4	7
CNTRL18	7	S	0.0000	3	5	Y	4	8	0	0	0	0	4	9
CNTRL18	7	S	0.0000	3	6	Y	8	5	1	2	1	1	8	5
CNTRL18	7	S	0.0000	4	7	Y	6	5	0	0	0	0	6	5
CNTRL18	7	S	0.0000	4	8	Y	2	11	0	0	0	0	3	11
CNTRL18	7	S	0.0000	5	9	Y	7	6	0	0	0	0	7	6
CNTRL18	7	S	0.0000	5	10	Y	6	8	0	0	0	1	6	8
CNTRL18	7	S	0.0000	6	11	Y	9	4	0	0	1	0	9	4
CNTRL18	7	S	0.0000	6	12	Y	3	10	0	0	0	0	3	10
CNTRL18	7	S	0.0000	7	13	Y	0	2	0	0	0	0	4	7
CNTRL18	7	S	0.0000	7	14	Y	8	7	1	1	0	0	8	7
CNTRL18	7	S	0.0000	8	15	Y	4	7	2	0	0	1	4	8
CNTRL18	7	S	0.0000	8	16	Y	6	3	1	0	1	2	8	5
CNTRL18	7	S	0.0000	9	17	Y	5	9	0	0	0	1	5	9
CNTRL18	7	S	0.0000	9	18	Y	6	5	0	0	0	0	7	5
CNTRL18	7	S	0.0000	10	19	Y	8	7	1	1	0	0	8	7
CNTRL18	7	S	0.0000	10	20	Y	3	7	0	0	0	0	3	8
71-18	7	S	.0300	21	41	Y	6	8	0	0	0	0	6	8
71-18	7	S	.0300	21	42	Y	3	8	0	1	1	0	4	8
71-18	7	S	.0300	22	43	Y	6	5	0	0	0	0	7	7
71-18	7	S	.0300	22	44	Y	2	9	0	0	0	0	2	10
71-18	7	S	.0300	23	45	Y	6	6	0	0	1	0	6	6
71-18	7	S	.0300	23	46	Y	9	1	0	0	0	0	9	3
71-18	7	S	.0300	24	47	Y	3	6	0	1	0	0	6	8
71-18	7	S	.0300	24	48	Y	6	4	0	0	0	0	7	4
71-18	7	S	.0300	25	49	Y	3	9	0	0	0	0	3	11
71-18	7	S	.0300	25	50	Y	6	6	0	0	0	0	6	6
71-18	7	S	.0300	26	51	Y	2	6	0	0	1	1	2	8
71-18	7	S	.0300	26	52	Y	7	6	1	1	2	0	7	6
71-18	7	S	.0300	27	53	Y	6	5	2	0	0	0	6	5
71-18	7	S	.0300	27	54	Y	3	7	0	0	0	0	3	8
71-18	7	S	.0300	28	55	Y	3	9	0	0	2	3	3	10
71-18	7	S	.0300	28	56	Y	6	10	0	0	0	0	6	11
71-18	7	S	.0300	29	57	Y	10	4	0	0	0	0	11	4
71-18	7	S	.0300	29	58	Y	6	0	0	0	0	0	6	6
71-18	7	S	.0300	30	59	Y	8	6	0	0	0	0	9	6
71-18	7	S	.0300	30	60	Y	5	7	2	0	1	1	5	7

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	7	S	2.5000	31	61	Y	6	2	2	0	0	0	7	4
71-18	7	S	2.5000	31	62	Y	7	5	0	0	1	1	7	5
71-18	7	S	2.5000	32	63	Y	7	5	0	0	0	0	7	6
71-18	7	S	2.5000	32	64	Y	3	5	0	0	0	0	3	5
71-18	7	S	2.5000	33	65	Y	6	6	0	0	0	0	6	6
71-18	7	S	2.5000	33	66	Y	6	6	0	0	0	0	6	6
71-18	7	S	2.5000	34	67	Y	6	5	0	2	0	0	8	5
71-18	7	S	2.5000	34	68	Y	8	3	0	0	0	0	10	3
71-18	7	S	2.5000	35	69	Y	8	4	0	0	0	0	8	5
71-18	7	S	2.5000	35	70	Y	6	5	0	1	0	0	6	5
71-18	7	S	2.5000	36	71	Y	8	3	1	2	0	0	9	4
71-18	7	S	2.5000	36	72	Y	5	5	0	0	0	0	5	5
71-18	7	S	2.5000	37	73	Y	6	7	0	0	0	0	6	7
71-18	7	S	2.5000	37	74	Y	8	4	0	0	1	0	8	4
71-18	7	S	2.5000	38	75	Y	5	5	0	0	0	0	6	5
71-18	7	S	2.5000	38	76	Y	6	5	0	0	0	0	6	6
71-18	7	S	2.5000	39	77	Y	6	6	1	1	0	0	6	7
71-18	7	S	2.5000	39	78	Y	2	2	2	0	0	0	4	5
71-18	7	S	2.5000	40	79	Y	3	8	0	0	0	1	5	9
71-18	7	S	2.5000	40	80	Y	6	5	2	1	2	1	6	5
71-18	7	S	5.0000	41	81	Y	0	5	0	0	0	0	7	5
71-18	7	S	5.0000	41	82	Y	4	8	0	1	0	0	4	8
71-18	7	S	5.0000	42	83	Y	8	5	0	0	0	0	8	5
71-18	7	S	5.0000	42	84	Y	7	4	0	0	0	0	9	4
71-18	7	S	5.0000	43	85	Y	5	6	3	0	0	0	5	6
71-18	7	S	5.0000	43	86	Y	8	6	0	0	0	0	8	7
71-18	7	S	5.0000	44	87	Y	6	6	0	0	0	1	6	6
71-18	7	S	5.0000	44	88	Y	6	7	1	0	0	0	8	7
71-18	7	S	5.0000	45	89	Y	4	6	0	1	0	0	7	7
71-18	7	S	5.0000	45	90	Y	4	8	0	1	0	0	5	8
71-18	7	S	5.0000	46	91	Y	5	1	0	0	0	0	5	7
71-18	7	S	5.0000	46	92	Y	5	7	3	5	0	0	5	7
71-18	7	S	5.0000	47	93	Y	4	7	0	2	2	1	7	10
71-18	7	S	5.0000	47	94	Y	9	4	0	1	0	0	10	4
71-18	7	S	5.0000	48	95	Y	6	5	0	1	0	0	6	5
71-18	7	S	5.0000	48	96	Y	4	6	0	3	0	0	4	6
71-18	7	S	5.0000	49	97	Y	6	6	0	0	0	0	6	6
71-18	7	S	5.0000	49	98	Y	5	7	0	0	1	0	5	7
71-18	7	S	5.0000	50	99	Y	8	3	2	0	0	0	8	3
71-18	7	S	5.0000	50	100	Y	5	6	0	0	0	0	5	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
TEM18	7	S	.0002	11	21	Y	7	4	0	0	0	0	7	4
TEM18	7	S	.0002	11	22	Y	4	6	0	0	0	0	4	6
TEM18	7	S	.0002	12	23	Y	5	7	1	0	0	0	8	10
TEM18	7	S	.0002	12	24	Y	7	6	1	0	0	0	9	6
TEM18	7	S	.0002	13	25	Y	6	6	1	0	0	0	6	6
TEM18	7	S	.0002	13	26	Y	5	8	0	0	0	0	5	8
TEM18	7	S	.0002	14	27	Y	5	4	0	0	1	1	9	4
TEM18	7	S	.0002	14	28	Y	7	6	0	0	0	0	8	6
TEM18	7	S	.0002	15	29	Y	4	8	0	0	1	0	4	8
TEM18	7	S	.0002	15	30	Y	4	7	0	0	0	0	4	7
TEM18	7	S	.0002	16	31	Y	5	5	0	2	0	0	5	7
TEM18	7	S	.0002	16	32	Y	3	6	0	0	0	0	3	6
TEM18	7	S	.0002	17	33	Y	7	5	0	0	1	1	7	5
TEM18	7	S	.0002	17	34	Y	4	6	0	0	0	0	4	7
TEM18	7	S	.0002	18	35	Y	5	6	0	0	0	1	7	8
TEM18	7	S	.0002	18	36	Y	5	7	0	0	0	2	5	7
TEM18	7	S	.0002	19	37	Y	7	6	0	0	0	0	7	6
TEM18	7	S	.0002	19	38	Y	6	6	0	0	0	0	6	6
TEM18	7	S	.0002	20	39	Y	7	5	0	0	7	5	8	5
TEM18	7	S	.0002	20	40	Y	2	10	0	1	0	0	2	10
CNTRL18	7	M	0.0000	1	1	Y	7	7	0	1	0	0	7	7
CNTRL18	7	M	0.0000	1	2	Y	4	9	0	2	0	0	4	9
CNTRL18	7	M	0.0000	2	3	Y	6	6	0	0	0	0	8	6
CNTRL18	7	M	0.0000	2	4	Y	4	7	1	1	0	0	4	7
CNTRL18	7	M	0.0000	3	5	Y	4	8	0	0	0	0	4	9
CNTRL18	7	M	0.0000	3	6	Y	8	5	1	2	1	1	8	5
CNTRL18	7	M	0.0000	4	7	Y	6	5	0	0	0	0	6	5
CNTRL18	7	M	0.0000	4	8	Y	2	11	0	0	0	0	3	11
CNTRL18	7	M	0.0000	5	9	Y	7	6	0	0	0	0	7	6
CNTRL18	7	M	0.0000	5	10	Y	5	8	0	0	0	1	6	8
CNTRL18	7	M	0.0000	6	11	Y	9	4	0	0	1	0	9	4
CNTRL18	7	M	0.0000	6	12	Y	3	10	0	0	0	0	3	10
CNTRL18	7	M	0.0000	7	13	Y	0	2	0	0	0	0	4	7
CNTRL18	7	M	0.0000	7	14	Y	6	7	1	1	0	0	8	7
CNTRL18	7	M	0.0000	8	15	Y	4	7	2	0	0	1	4	8
CNTRL18	7	M	0.0000	8	16	Y	6	3	1	0	1	2	8	5
CNTRL18	7	M	0.0000	9	17	Y	5	9	0	0	0	1	5	9
CNTRL18	7	M	0.0000	9	18	Y	6	5	0	0	0	0	7	5
CNTRL18	7	M	0.0000	10	19	Y	8	7	1	1	0	0	8	7
CNTRL18	7	M	0.0000	10	20	Y	3	7	0	0	0	0	3	8

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	7	M	.0300	11	21	Y	6	4	0	0	0	0	7	5
71-18	7	M	.0300	11	22	Y	7	4	0	0	0	0	7	4
71-18	7	M	.0300	12	23	Y	4	7	1	0	0	0	4	7
71-18	7	M	.0300	12	24	Y	8	3	1	0	0	1	8	3
71-18	7	M	.0300	13	25	Y	5	5	0	0	0	0	7	5
71-18	7	M	.0300	13	26	N	0	0	0	0	0	0	0	0
71-18	7	M	.0300	14	27	Y	7	6	0	2	0	0	7	6
71-18	7	M	.0300	14	28	Y	6	5	0	0	0	0	6	5
71-18	7	M	.0300	15	29	Y	8	3	0	0	1	0	9	3
71-18	7	M	.0300	15	30	N	0	0	0	0	0	0	0	0
71-18	7	M	.0300	16	31	Y	2	10	0	0	0	0	2	10
71-18	7	M	.0300	16	32	Y	5	8	0	0	0	0	5	8
71-18	7	M	.0300	17	33	Y	7	6	0	0	0	0	9	6
71-18	7	M	.0300	17	34	Y	9	4	0	0	0	0	10	4
71-18	7	M	.0300	18	35	N	0	0	0	0	0	0	0	0
71-18	7	M	.0300	18	36	Y	3	8	0	0	0	0	3	9
71-18	7	M	.0300	19	37	Y	7	4	0	0	0	0	7	4
71-18	7	M	.0300	19	38	Y	3	9	0	0	0	0	5	9
71-18	7	M	.0300	20	39	Y	7	6	0	0	0	0	9	6
71-18	7	M	.0300	20	40	N	0	0	0	0	0	0	0	0
71-18	7	M	2.5000	21	41	Y	5	6	0	0	0	0	5	6
71-18	7	M	2.5000	21	42	Y	5	6	0	0	0	0	5	6
71-18	7	M	2.5000	22	43	N	0	0	0	0	0	0	0	0
71-18	7	M	2.5000	22	44	Y	7	4	1	0	2	1	7	5
71-18	7	M	2.5000	23	45	Y	5	5	0	0	0	0	5	5
71-18	7	M	2.5000	23	46	Y	5	7	0	0	1	0	7	7
71-18	7	M	2.5000	24	47	Y	7	6	0	0	0	1	7	6
71-18	7	M	2.5000	24	48	Y	4	7	0	1	0	0	4	7
71-18	7	M	2.5000	25	49	Y	3	10	0	0	0	0	3	10
71-18	7	M	2.5000	25	50	Y	5	5	0	0	0	0	6	5
71-18	7	M	2.5000	26	51	Y	3	9	0	0	0	0	4	9
71-18	7	M	2.5000	26	52	Y	6	5	0	0	0	0	6	5
71-18	7	M	2.5000	27	53	Y	4	4	0	0	1	0	5	8
71-18	7	M	2.5000	27	54	Y	4	8	0	0	0	0	4	9
71-18	7	M	2.5000	28	55	N	0	0	0	0	0	0	0	0
71-18	7	M	2.5000	28	56	N	0	0	0	0	0	0	0	0
71-18	7	M	2.5000	29	57	Y	3	7	0	0	0	0	4	9
71-18	7	M	2.5000	29	58	Y	6	6	0	1	0	0	6	6
71-18	7	M	2.5000	30	59	Y	6	6	1	0	0	0	6	7
71-18	7	M	2.5000	30	60	Y	6	6	0	0	1	0	6	6

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
71-18	7	M	5.0000	31	61	Y	5	8	0	0	0	0	5	9
71-18	7	M	5.0000	31	62	Y	2	7	0	0	0	2	3	7
71-18	7	M	5.0000	32	63	Y	5	6	0	0	0	0	5	8
71-18	7	M	5.0000	32	64	N	0	0	0	0	0	0	0	0
71-18	7	M	5.0000	33	65	Y	5	10	0	0	0	0	7	10
71-18	7	M	5.0000	33	66	Y	6	6	0	1	0	0	6	7
71-18	7	M	5.0000	34	67	Y	1	8	0	4	0	0	1	10
71-18	7	M	5.0000	34	68	Y	6	5	0	0	0	0	6	5
71-18	7	M	5.0000	35	69	Y	2	11	0	0	1	0	2	11
71-18	7	M	5.0000	35	70	Y	5	8	0	1	0	0	6	8
71-18	7	M	5.0000	36	71	Y	5	5	0	0	0	0	6	8
71-18	7	M	5.0000	36	72	N	0	0	0	0	0	0	0	0
71-18	7	M	5.0000	37	73	Y	9	4	0	0	2	5	9	5
71-18	7	M	5.0000	37	74	Y	5	6	0	0	0	0	6	6
71-18	7	M	5.0000	38	75	Y	5	5	0	0	0	0	5	5
71-18	7	M	5.0000	38	76	Y	6	8	1	2	0	0	6	8
71-18	7	M	5.0000	39	77	Y	8	4	0	0	1	0	8	4
71-18	7	M	5.0000	39	78	Y	7	4	0	0	0	0	7	4
71-18	7	M	5.0000	40	79	Y	7	7	0	0	0	0	7	7
71-18	7	M	5.0000	40	80	Y	3	3	0	0	0	0	3	9

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TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
CNTRL18	8	S	0.0000	1	1	Y	7	6	0	0	0	0	7	6
CNTRL18	8	S	0.0000	1	2	Y	9	4	0	0	0	0	10	4
CNTRL18	8	S	0.0000	2	3	Y	7	5	0	0	0	0	7	5
CNTRL18	8	S	0.0000	2	4	Y	2	8	0	0	0	0	3	8
CNTRL18	8	S	0.0000	3	5	Y	7	6	0	0	0	1	7	6
CNTRL18	8	S	0.0000	3	6	Y	1	3	0	0	0	0	6	5
CNTRL18	8	S	0.0000	4	7	Y	6	5	0	0	0	0	6	5
CNTRL18	8	S	0.0000	4	8	Y	3	8	0	0	0	0	3	8
CNTRL18	8	S	0.0000	5	9	Y	6	5	0	0	0	0	6	7
CNTRL18	8	S	0.0000	5	10	Y	5	8	0	0	1	1	5	8
CNTRL18	8	S	0.0000	6	11	Y	6	5	0	1	0	0	6	5
CNTRL18	8	S	0.0000	6	12	Y	4	7	0	0	0	0	4	7
CNTRL18	8	S	0.0000	7	13	Y	4	7	0	0	0	0	4	7
CNTRL18	8	S	0.0000	7	14	Y	6	5	0	0	0	0	6	5
CNTRL18	8	S	0.0000	8	15	Y	5	10	0	1	0	0	5	10
CNTRL18	8	S	0.0000	8	16	Y	4	6	0	0	1	3	4	6
CNTRL18	8	S	0.0000	9	17	Y	6	6	0	0	1	0	8	6
CNTRL18	8	S	0.0000	9	18	Y	3	7	0	0	0	0	3	9
CNTRL18	8	S	0.0000	10	19	Y	8	5	1	0	0	0	8	5
CNTRL18	8	S	0.0000	10	20	Y	3	6	0	0	0	0	5	7
71-18	8	S	.0300	21	41	Y	9	3	0	0	0	0	9	3
71-18	8	S	.0300	21	42	Y	4	8	0	0	0	0	6	8
71-18	8	S	.0300	22	43	Y	6	6	0	0	0	0	6	7
71-18	8	S	.0300	22	44	Y	4	8	0	0	0	0	4	8
71-18	8	S	.0300	23	45	Y	4	10	0	0	0	0	6	10
71-18	8	S	.0300	23	46	Y	9	5	0	0	0	0	9	5
71-18	8	S	.0300	24	47	Y	6	2	0	0	0	0	8	2
71-18	8	S	.0300	24	48	Y	7	8	0	2	0	0	7	8
71-18	8	S	.0300	25	49	Y	9	4	0	0	0	2	10	4
71-18	8	S	.0300	25	50	Y	7	5	0	0	0	0	7	8
71-18	8	S	.0300	26	51	Y	10	3	0	0	1	0	11	3
71-18	8	S	.0300	26	52	N	0	0	0	0	0	0	0	0
71-18	8	S	.0300	27	53	Y	2	11	0	0	0	0	2	12
71-18	8	S	.0300	27	54	Y	2	11	0	0	0	1	3	11
71-18	8	S	.0300	28	55	Y	9	4	0	0	0	0	9	4
71-18	8	S	.0300	28	56	Y	8	5	1	1	4	1	8	5
71-18	8	S	.0300	29	57	Y	2	9	0	0	0	0	2	10
71-18	8	S	.0300	29	58	Y	0	4	0	0	0	0	4	8
71-18	8	S	.0300	30	59	Y	9	5	0	0	0	0	10	5
71-18	8	S	.0300	30	60	Y	7	8	1	0	2	3	7	8

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPOA LUTEA	
							L	R	L	R	L	R	L	R
71-18	R	S	2.5000	31	61	Y	6	7	0	0	0	0	6	8
71-18	R	S	2.5000	31	62	Y	6	7	0	1	4	2	8	8
71-18	R	S	2.5000	32	63	Y	6	5	0	2	0	2	6	5
71-18	R	S	2.5000	32	64	Y	5	5	0	0	3	1	5	5
71-18	R	S	2.5000	33	65	Y	7	5	0	0	0	0	10	5
71-18	R	S	2.5000	33	66	Y	9	3	0	0	0	0	9	3
71-18	R	S	2.5000	34	67	Y	8	5	1	0	0	0	8	5
71-18	R	S	2.5000	34	68	Y	7	8	1	0	0	0	7	8
71-18	R	S	2.5000	35	69	Y	5	6	0	0	1	0	9	6
71-18	R	S	2.5000	35	70	Y	8	3	0	0	0	0	12	3
71-18	R	S	2.5000	36	71	Y	6	10	0	0	0	0	6	10
71-18	R	S	2.5000	36	72	N	0	0	0	0	0	0	0	0
71-18	R	S	2.5000	37	73	Y	4	7	0	0	0	0	4	9
71-18	R	S	2.5000	37	74	Y	6	8	0	0	0	0	7	8
71-18	R	S	2.5000	38	75	N	0	0	0	0	0	0	0	0
71-18	R	S	2.5000	38	76	Y	6	7	0	0	0	0	6	7
71-18	R	S	2.5000	39	77	Y	8	7	0	0	1	0	8	7
71-18	R	S	2.5000	39	78	Y	5	8	0	0	0	1	5	8
71-18	R	S	2.5000	40	79	Y	6	8	0	0	3	2	7	8
71-18	R	S	2.5000	40	80	Y	8	4	1	0	0	0	9	5
71-18	R	S	5.0000	41	81	Y	9	6	0	0	0	0	9	6
71-18	R	S	5.0000	41	82	Y	1	3	0	0	0	0	6	7
71-18	R	S	5.0000	42	83	Y	6	7	0	0	0	0	10	7
71-18	R	S	5.0000	42	84	N	0	0	0	0	0	0	0	0
71-18	R	S	5.0000	43	85	Y	6	5	0	0	1	2	6	7
71-18	R	S	5.0000	43	86	Y	7	6	0	0	2	1	7	6
71-18	R	S	5.0000	44	87	Y	6	7	0	0	0	0	7	10
71-18	R	S	5.0000	44	88	Y	7	6	0	2	0	0	7	6
71-18	R	S	5.0000	45	89	Y	6	7	0	0	0	0	6	7
71-18	R	S	5.0000	45	90	Y	0	1	0	0	0	0	4	8
71-18	R	S	5.0000	46	91	Y	5	8	3	4	0	0	5	8
71-18	R	S	5.0000	46	92	Y	6	8	5	2	0	1	6	8
71-18	R	S	5.0000	47	93	Y	4	7	0	0	0	2	5	7
71-18	R	S	5.0000	47	94	Y	6	9	0	0	0	0	6	9
71-18	R	S	5.0000	48	95	Y	5	11	0	0	0	0	5	11
71-18	R	S	5.0000	48	96	Y	7	8	0	0	0	0	7	8
71-18	R	S	5.0000	49	97	Y	2	2	0	0	0	0	4	7
71-18	R	S	5.0000	49	98	Y	4	2	0	0	0	1	9	4
71-18	R	S	5.0000	50	99	Y	4	11	0	1	0	0	4	11
71-18	R	S	5.0000	50	100	Y	6	6	0	0	0	0	6	7

TEST MATERIAL	WEEK	S/M	DOSE	MALE NO.	FEMALE NO.	PREG.	IMPLANTS		EARLY DEATHS		LATE DEATHS		CORPORA LUTEA	
							L	R	L	R	L	R	L	R
TEM18	R	S	.0002	11	21	Y	3	7	0	0	0	1	3	8
TEM18	R	S	.0002	11	22	Y	2	11	0	0	0	0	3	12
TEM18	R	S	.0002	12	23	Y	7	6	0	0	2	0	7	6
TEM18	R	S	.0002	12	24	Y	7	7	0	0	0	0	7	7
TEM18	R	S	.0002	13	25	Y	5	5	0	0	1	0	8	5
TEM18	R	S	.0002	13	26	Y	6	5	3	3	0	0	6	6
TEM18	R	S	.0002	14	27	Y	7	6	0	0	0	0	7	6
TEM18	R	S	.0002	14	28	Y	4	8	0	0	0	0	4	8
TEM18	R	S	.0002	15	29	Y	8	4	0	0	0	0	8	6
TEM18	R	S	.0002	15	30	Y	0	3	0	0	0	0	9	3
TEM18	R	S	.0002	16	31	Y	5	8	0	1	0	1	5	8
TEM18	R	S	.0002	16	32	Y	5	6	0	0	0	0	5	6
TEM18	R	S	.0002	17	33	Y	2	1	0	0	0	0	13	2
TEM18	R	S	.0002	17	34	Y	3	10	0	0	0	0	4	11
TEM18	R	S	.0002	18	35	Y	6	8	0	0	0	0	6	8
TEM18	R	S	.0002	18	36	Y	9	3	1	0	0	0	9	3
TEM18	R	S	.0002	19	37	Y	5	7	0	0	0	0	7	7
TEM18	R	S	.0002	19	38	Y	7	5	0	0	1	1	7	5
TEM18	R	S	.0002	20	39	Y	7	4	2	0	0	0	7	5
TEM18	R	S	.0002	20	40	Y	6	4	0	1	0	0	7	4

CHI-SQUARE TEST OF THE FERTILITY INDEX (1 DEGREE OF FREEDOM)

WEEK	VEHICLE CONTROL				71-18 .03 G/KG				71-18 2.5 G/KG				71-18 5.0 G/KG				TEM. .2 MG/KG			
	N PRG	N MTD	FERT. INDEX	CHISQ	N PRG	N MTD	FERT. INDEX	CHISQ	N PRG	N MTD	FERT. INDEX	CHISQ	N PRG	N MTD	FERT. INDEX	CHISQ	N PRG	N MTD	FERT. INDEX	CHISQ
SINGLE TREATMENT																				
1	19	20	.95	0.00	16	20	.80	.91	19	20	.95	.53	17	20	.85	.28	19	20	.95	.53
2	20	20	1.00	0.00	20	20	1.00	0.00	19	20	.95	0.00	20	20	1.00	0.00	19	20	.95	0.00
3	20	20	1.00	0.00	19	20	.95	0.00	17	20	.85	1.44	20	20	1.00	0.00	20	20	1.00	0.00
4	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00	18	20	.90	.53	18	20	.90	.53
5	20	20	1.00	0.00	19	20	.95	0.00	20	20	1.00	0.00	19	20	.95	0.00	19	20	.95	0.00
6	20	20	1.00	0.00	19	20	.95	0.00	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00
7	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00
8	20	20	1.00	0.00	19	20	.95	0.00	18	20	.90	.53	19	20	.95	0.00	20	20	1.00	0.00
MULTIPLE TREATMENT																				
1	19	20	.95	0.00	18	20	.90	0.00	14	20	.95	.53	11	20	.55	6.53				
2	20	20	1.00	0.00	18	20	.90	.53	19	20	.95	0.00	19	20	.95	0.00				
3	20	20	1.00	0.00	18	20	.90	.53	20	20	1.00	0.00	18	20	.90	.53				
4	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00	17	20	.85	1.44				
5	20	20	1.00	0.00	19	20	.95	0.00	20	20	1.00	0.00	20	20	1.00	0.00				
6	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00	20	20	1.00	0.00				
7	20	20	1.00	0.00	16	20	.80	2.50	17	20	.85	1.44	18	20	.90	.53				

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE FERTILITY INDEX
(1 DEGREE OF FREEDOM) BASED ON THE DOSE LEVELS

WEEK	.03 G/KG		2.5 G/KG		5.0 G/KG		CHISQ (C-1)	CHISQ (1)	ARMTG CHISQ
	N PRG	N MTD	N PRG	N MTD	N PRG	N MTD			
SINGLE TREATMENT									
1	16	20	19	20	17	20	2.02	.21	1.81
2	20	20	19	20	20	20	2.03	.00	2.03
3	19	20	17	20	20	20	3.75	.41	3.34
4	20	20	20	20	18	20	4.14	3.12	1.02
5	19	20	20	20	19	20	1.03	.00	1.03
6	19	20	20	20	20	20	2.03	1.52	.51
7	20	20	20	20	20	20	0.00	0.00	0.00
8	19	20	18	20	19	20	.54	.00	.54
MULTIPLE TREATMENT									
1	18	20	19	20	11	20	11.87	7.70	4.18
2	18	20	19	20	19	20	.54	.40	.14
3	18	20	20	20	18	20	2.14	.00	2.14
4	20	20	20	20	17	20	6.32	4.76	1.56
5	19	20	20	20	20	20	2.03	1.52	.51
6	20	20	20	20	20	20	0.00	0.00	0.00
7	16	20	17	20	18	20	.78	.78	.00

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE FERTILITY INDEX
(1 DEGREE OF FREEDOM) BASED ON THE LOGARITHMS OF THE DOSE LEVELS

WEEK	.03 G/KG		2.5 G/KG		5.0 G/KG		CHISQ (C-1)	CHISQ (1)	ARMTG CHISQ
	N PRG	N MTD	N PRG	N MTD	N PRG	N MTD			
SINGLE TREATMENT									
1	16	20	19	20	17	20	2.02	.90	1.12
2	20	20	19	20	20	20	2.03	.31	1.73
3	19	20	17	20	20	20	3.75	.02	3.73
4	20	20	20	20	18	20	4.14	1.51	2.63
5	19	20	20	20	19	20	1.03	.16	.88
6	19	20	20	20	20	20	2.03	2.00	.03
7	20	20	20	20	20	20	0.00	0.00	0.00
8	19	20	18	20	19	20	.54	.08	.46
MULTIPLE TREATMENT									
1	18	20	19	20	11	20	11.87	3.07	8.80
2	18	20	19	20	19	20	.54	.53	.01
3	18	20	20	20	18	20	2.14	.32	1.82
4	20	20	20	20	17	20	6.32	2.31	4.01
5	19	20	20	20	20	20	2.03	2.00	.03
6	20	20	20	20	20	20	0.00	0.00	0.00
7	16	20	17	20	18	20	.78	.67	.12

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE FERTILITY INDEX
(2 DEGREES OF FREEDOM) BASED ON THE DOSE LEVELS AND INCLUDING THE CONTROL GROUP

WEEK	CONTROL		.03 G/KG		2.5 G/KG		5.0 G/KG		CHISQ (C-1)	CHISQ (1)	ARMTG CHISQ
	N PRG	N MTD	N PRG	N MTD	N PRG	N MTD	N PRG	N MTD			
SINGLE TREATMENT											
1	19	20	16	20	19	20	17	20	3.38	.25	3.13
2	20	20	20	20	19	20	20	20	3.04	.14	2.90
3	20	20	19	20	17	20	20	20	6.32	.85	5.47
4	20	20	20	20	20	20	18	20	6.15	6.06	.09
5	20	20	19	20	20	20	19	20	2.05	.56	1.49
6	20	20	19	20	20	20	20	20	3.04	.46	2.58
7	20	20	20	20	20	20	20	20	0.00	0.00	0.00
8	20	20	19	20	18	20	19	20	2.11	.02	2.08
MULTIPLE TREATMENT											
1	19	20	18	20	19	20	11	20	16.44	15.68	.76
2	20	20	18	20	19	20	19	20	2.11	.00	2.11
3	20	20	18	20	20	20	18	20	4.21	1.16	3.05
4	20	20	20	20	20	20	17	20	9.35	9.21	.14
5	20	20	19	20	20	20	20	20	3.04	.46	2.58
6	20	20	20	20	20	20	20	20	0.00	0.00	0.00
7	20	20	16	20	17	20	18	20	4.38	.02	4.36

T-TEST OF THE NUMBER OF IMPLANTATIONS IN PREGNANT FEMALES.

WEEK	CONTROL				71-18 .03 G/KG				71-18 2.5 G/KG				71-18 5.0 G/KG				TEM .2 MG/KG							
	N PRG	MEAN	STD DEV	T	N PRG	MEAN	STD DEV	DF	T	N PRG	MEAN	STD DEV	DF	T	N PRG	MEAN	STD DEV	DF	T					
SINGLE TREATMENT																								
1	19	12.42	1.80		16	12.87	2.03	33	.700	19	11.26	4.27	36	1.089	17	13.47	1.91	34	1.696	19	10.16	4.18	36	2.167
2	20	11.00	3.91		20	11.25	1.89	38	.258	19	11.63	2.17	37	.620	20	12.30	3.05	38	1.174	19	8.37	2.19	37	2.575
3	20	10.45	2.58		19	10.74	2.86	37	.329	17	11.12	1.69	35	.911	20	10.60	2.58	38	.184	20	8.50	3.35	38	2.062
4	20	11.50	2.95		20	10.85	2.87	38	.707	20	11.00	2.36	38	.592	18	10.67	2.30	36	.964	18	3.33	1.91	36	10.010
5	20	10.70	2.60		19	11.74	2.75	37	1.212	20	10.70	3.10	38	0.000	19	12.16	2.19	37	1.889	19	10.05	3.24	37	.690
6	20	11.80	2.75		19	11.58	3.04	37	.238	20	12.00	2.66	38	.234	20	12.20	2.63	38	.471	20	11.35	1.69	38	.624
7	20	11.95	2.84		20	11.40	2.28	38	.676	20	10.75	2.02	38	1.540	20	11.10	2.17	38	1.063	20	11.50	1.24	38	.650
8	20	11.20	2.21		19	12.42	2.61	37	1.578	18	12.72	1.64	36	2.386	19	11.42	4.36	37	.201	20	11.10	3.02	38	.119
MULTIPLE TREATMENT																								
1	19	12.42	1.80		18	11.44	1.82	35	1.637	19	11.84	2.41	36	.838	11	12.55	2.21	28	.168					
2	20	11.00	3.91		18	11.89	2.03	36	.865	19	11.32	2.93	37	.285	19	10.84	3.50	37	.133					
3	20	10.45	2.58		18	13.11	1.57	36	3.783	20	10.85	2.32	38	.515	19	11.06	2.78	36	.696					
4	20	11.50	2.95		20	10.45	3.17	38	1.085	20	10.20	3.02	38	1.378	17	12.24	1.60	35	.919					
5	20	10.70	2.60		19	12.26	3.28	37	1.654	20	10.75	3.92	38	.048	20	11.70	2.66	38	1.203					
6	20	11.80	2.75		20	11.85	3.65	38	.049	20	11.45	1.85	38	.473	20	9.90	3.40	38	1.944					
7	20	11.95	2.84		16	11.62	1.09	34	.432	17	11.24	1.25	35	.961	18	11.50	2.20	36	.542					

REGRESSION FITS OF THE NUMBER, U, OF IMPLANTATIONS ON 1) DOSE, AND 2) LOG DOSE.
(PREDICTED $U = A + B \cdot X$) CONTROL GROUP EXCLUDED

WEEK	X	N	XBAR	SD X	UBAR	SD U	B	A	TB	DF	VARU.X	CV U	VARB	VARA	VARUBAR
SINGLE TREATMENT															
1	DOSE	52	2.55	2.00	12.48	3.12	.130	12.148	.592	50	9.8307	.2512	.0483	.5047	.1801
	LOG DOSE	52	-.22	2.23	12.48	3.12	-.064	12.467	-.324	50	9.8789	.2518	.0389	.1918	.1900
2	DOSE	59	2.51	2.06	11.73	2.42	.211	11.198	1.384	57	5.7653	.2047	.0233	.2448	.0977
	LOG DOSE	59	-.35	2.30	11.73	2.42	.164	11.786	1.191	57	5.8143	.2056	.0190	.1009	.0985
3	DOSE	56	2.55	2.09	10.80	2.42	-.029	10.878	-.186	54	5.9747	.2253	.0248	.2687	.1067
	LOG DOSE	56	-.34	2.31	10.80	2.42	.009	10.867	.067	54	5.9790	.2263	.0264	.1091	.1068
4	DOSE	58	2.42	2.03	10.84	2.49	-.035	10.930	-.215	56	6.3091	.2316	.0269	.2571	.1088
	LOG DOSE	58	-.39	2.30	10.84	2.49	-.009	10.841	-.062	56	6.3139	.2317	.0210	.1121	.1089
5	DOSE	58	2.51	2.03	11.52	2.74	.086	11.302	.477	56	7.5949	.2391	.0323	.3344	.1308
	LOG DOSE	58	-.31	2.27	11.52	2.74	-.034	11.507	-.212	56	7.6097	.2395	.0259	.1335	.1312
6	DOSE	59	2.55	2.04	11.93	2.74	.124	11.615	.702	57	7.5789	.2307	.0315	.3335	.1285
	LOG DOSE	59	-.27	2.27	11.93	2.74	.112	11.963	.703	57	7.5787	.2307	.0254	.1303	.1285
7	DOSE	60	2.51	2.05	11.08	2.14	-.060	11.234	-.437	58	4.6499	.1946	.0188	.1951	.0775
	LOG DOSE	60	-.33	2.29	11.08	2.14	-.090	11.054	-.736	58	4.6220	.1940	.0150	.0785	.0770
8	DOSE	56	2.51	2.07	12.18	3.10	-.202	12.685	-.998	54	9.5047	.2545	.0409	.4294	.1715
	LOG DOSE	56	-.35	2.30	12.18	3.10	-.104	12.142	-.571	54	9.7231	.2560	.0334	.1777	.1736
MULTIPLE TREATMENTS															
1	DOSE	48	2.15	1.92	11.85	2.15	.216	11.301	1.324	46	4.5541	.1802	.0264	.2170	.0951
	LOG DOSE	48	-.58	2.30	11.85	2.15	.152	11.943	1.117	46	4.6136	.1812	.0185	.1024	.0961
2	DOSE	56	2.55	2.04	11.34	2.87	-.210	11.877	-1.108	54	8.2305	.2530	.0360	.3521	.1470
	LOG DOSE	56	-.27	2.27	11.34	2.87	-.178	11.29	-1.042	54	8.2517	.2533	.0292	.1495	.1474
3	DOSE	56	2.51	2.01	11.64	2.46	-.413	12.678	-2.631	54	5.4635	.2008	.0246	.2523	.0976
	LOG DOSE	56	-.28	2.26	11.64	2.46	-.443	11.518	-3.271	54	5.1445	.1948	.0184	.0933	.0919
4	DOSE	57	2.38	2.02	10.89	2.83	.347	10.069	1.890	55	7.6721	.2542	.0337	.3255	.1346
	LOG DOSE	57	-.43	2.30	10.89	2.83	.186	10.975	1.134	55	7.9838	.2594	.0259	.1450	.1401
5	DOSE	59	2.55	2.04	11.55	3.33	-.108	11.835	-.500	57	11.2234	.2898	.0466	.4938	.1902
	LOG DOSE	59	-.27	2.27	11.55	3.33	-.192	11.507	-.996	57	11.0800	.2880	.0372	.1906	.1878
6	DOSE	60	2.51	2.05	11.07	3.13	-.393	12.053	-2.020	58	9.3353	.2751	.0378	.3938	.1556
	LOG DOSE	60	-.33	2.29	11.07	3.13	-.277	10.975	-1.573	58	9.5867	.2798	.0311	.1631	.1598
7	DOSE	51	2.81	2.05	11.45	1.59	-.022	11.565	-.201	49	2.5821	.1403	.0123	.1344	.0506
	LOG DOSE	51	-.23	2.26	11.45	1.59	-.046	11.441	-.457	49	2.5733	.1401	.0101	.0510	.0505

REGRESSION FITS OF THE NUMBER, U, OF IMPLANTATIONS ON DOSE,
(PREDICTED $U = A + B \cdot X$)
CONTROL GROUP INCLUDED

WEEK	X	N	XBAR	SD X	UBAR	SD U	B	A	TB	DF	VARU.X	CV U	VARB	VARA	VARUBAR
SINGLE TREATMENT															
1	DOSE	71	1.87	2.05	12.46	2.81	.097	12.283	.590	69	7.9838	.2267	.0271	.2075	.1124
2	DOSE	79	1.87	2.09	11.54	2.86	.233	17.107	1.519	77	8.0396	.2456	.0236	.1846	.1018
3	DOSE	76	1.88	2.12	10.71	2.45	.019	10.676	.138	74	6.1016	.2306	.0181	.1443	.0803
4	DOSE	78	1.80	2.04	11.01	2.61	-.099	11.792	-.679	76	6.8661	.2379	.0214	.1574	.0880
5	DOSE	78	1.87	2.05	11.31	2.71	.154	11.020	1.032	76	7.3264	.2394	.0223	.1716	.0939
6	DOSE	79	1.91	2.08	11.90	2.72	.104	11.701	.696	77	7.4749	.2298	.0221	.1749	.0946
7	DOSE	80	1.88	2.08	11.30	2.35	-.139	11.562	-1.096	78	5.4899	.2073	.0161	.1256	.0686
8	DOSE	76	1.85	2.09	11.92	2.91	-.034	11.984	-.211	74	8.5831	.2458	.0262	.2026	.1129
MULTIPLE TREATMENTS															
1.	DOSE	67	1.54	1.89	12.01	2.06	.088	11.880	.650	65	4.2949	.1725	.0183	.1073	.0641
2	DOSE	76	1.88	2.08	11.25	3.15	-.109	11.455	-.618	74	10.0326	.2815	.0309	.2415	.1320
3	DOSE	76	1.85	2.05	11.33	2.53	-.151	11.608	-1.060	74	6.3999	.2233	.0203	.1537	.0842
4	DOSE	77	1.76	2.02	11.05	2.86	.185	10.726	1.146	75	8.1216	.2579	.0261	.1864	.1055
5	DOSE	79	1.91	2.08	11.34	3.17	.020	11.304	.115	77	10.1511	.2809	.0300	.2376	.1285
6	DOSE	80	1.88	2.08	11.25	3.04	-.365	11.937	-2.275	78	8.7886	.2635	.0257	.2011	.1099
7	DOSE	71	1.87	2.09	11.59	2.01	-.076	11.734	-.660	69	4.0779	.1742	.0133	.1040	.0574

T-TEST TEST OF THE (TRANSFORMED) PRE-IMPLANTATION LOSSES IN PREGNANT FEMALES.
(LOSSES TAKEN AS A SUBSET OF THE SET OF CORPORA LUTEA)

WEEK	CONTROL				71-18 .03 G/KG				71-18 2.5 G/KG				71-18 5.0 G/KG				TEM .2 MG/KG								
	N PRG	MEAN	STD DEV	DF	N PRG	MEAN	STD DEV	DF	T	N PRG	MEAN	STD DEV	DF	T	N PRG	MEAN	STD DEV	DF	T	N PRG	MEAN	STD DEV	DF	T	
SINGLE TREATMENT																									
1	19	.52	.27	16	.54	.41	33		.183	19	.82	.65	36		1.894	17	.46	.26	34	.668	19	.95	.68	36	2.552
2	20	.65	.65	20	.56	.37	38		.511	19	.55	.40	37		.557	20	.48	.45	38	.936	19	1.05	.49	37	2.169
3	20	.73	.47	19	.71	.53	37		.118	17	.66	.45	35		.452	20	.69	.50	38	.244	20	1.15	.57	38	2.579
4	20	.65	.51	20	.62	.51	38		.197	20	.58	.48	38		.200	18	.74	.45	36	.539	18	2.01	.38	36	9.219
5	20	.67	.47	19	.55	.45	37		.827	20	.71	.60	38		.223	19	.62	.34	37	.400	19	.83	.56	37	.997
6	20	.63	.47	19	.70	.47	37		.458	20	.52	.43	38		.781	20	.49	.36	38	1.026	20	.66	.30	36	.272
7	20	.54	.47	20	.69	.36	38		1.014	20	.60	.38	38		.426	20	.62	.47	38	.550	20	.53	.34	38	.127
8	20	.53	.41	19	.58	.39	37		.446	18	.56	.33	36		.301	19	.78	.70	37	1.365	20	.69	.55	38	1.065
MULTIPLE TREATMENT																									
1	19	.52	.27	18	.41	.26	35		1.219	19	.67	.39	35		.468	11	.52	.38	28	.009					
2	20	.65	.65	18	.73	.33	36		.463	19	.65	.54	37		.012	19	.82	.56	37	.853					
3	20	.73	.47	18	.40	.20	36		2.751	20	.66	.42	38		.485	18	.63	.48	36	.657					
4	20	.65	.51	20	.79	.60	38		.767	20	.72	.56	38		.415	17	.46	.24	35	1.402					
5	20	.67	.47	19	.59	.56	37		.478	20	.87	.67	38		1.108	20	.66	.50	38	.093					
6	20	.63	.47	20	.64	.61	38		.067	20	.61	.36	38		.140	20	.80	.65	38	.953					
7	20	.54	.47	16	.53	.27	34		.056	17	.54	.32	35		.011	18	.61	.37	36	.456					

T-TEST OF THE (TRANSFORMED) NUMBER OF DEAD IMPLANTS.
(DEAD IMPLANTS TAKEN AS A SUBSET OF THE SET OF CORPORA LUTEA)

WEEK	CONTROL				71-18 .03 G/KG				71-18 2.5 G/KG				71-18 5.0 G/KG				TEM .2 MG/KG							
	N FEM	MEAN	STD DEV	DF	N FEM	MEAN	STD DEV	DF	T	N FEM	MEAN	STD DEV	DF	T	N FEM	MEAN	STD DEV	DF	T	N FEM	MEAN	STD DEV	DF	T
SINGLE TREATMENT																								
1	20	.63	.30	20	.71	.53	38		.574	20	.47	.33	38	1.584	20	.70	.54	38	.493	20	1.12	.50	38	3.765
2	20	.47	.27	20	.53	.36	38		.522	20	.50	.37	38	.220	20	.52	.48	38	.369	20	1.78	.32	38	14.007
3	20	.58	.31	20	.55	.37	38		.263	20	.71	.52	38	.941	20	.56	.39	38	.164	20	1.74	.46	38	9.437
4	20	.54	.31	20	.59	.30	38		.480	20	.75	.36	38	1.988	20	.81	.51	38	2.015	20	1.16	.37	38	5.744
5	20	.54	.25	20	.63	.37	38		.949	20	.54	.34	38	.050	20	.52	.42	38	.148	20	1.11	.37	38	5.732
6	20	.59	.34	20	.81	.44	38	1.783	20	.58	.42	38	.105	20	.47	.31	38	1.136	20	.82	.35	38	2.076	
7	20	.61	.36	20	.56	.40	38	.388	20	.61	.39	38	.038	20	.68	.42	38	.582	20	.62	.50	38	.131	
8	20	.46	.29	20	.55	.47	38	.727	20	.72	.50	38	1.999	20	.65	.52	38	1.392	20	.54	.36	38	.763	
MULTIPLE TREATMENT																								
1	20	.63	.30	20	.54	.40	38	.832	20	.46	.34	38	1.733	20	1.00	.59	38	2.437						
2	20	.47	.27	20	.52	.41	38	.451	20	.52	.39	38	.422	20	.60	.34	38	1.360						
3	20	.58	.31	20	.65	.39	38	.652	20	.45	.21	38	1.587	20	.60	.44	38	.208						
4	20	.54	.31	20	.46	.21	38	.971	20	.58	.53	38	.283	20	.74	.50	38	1.470						
5	20	.54	.25	20	.48	.35	38	.626	20	.52	.33	38	.250	20	.55	.27	38	.119						
6	20	.63	.41	20	.53	.33	38	.883	20	.58	.26	38	.448	20	.62	.31	38	.102						
7	20	.61	.36	20	.64	.52	38	.233	20	.66	.47	38	.414	20	.67	.49	38	.471						

CHI-SQUARE TEST OF THE DEATH INDEX (1 DEGREE OF FREEDOM)

WEEK	VEHICLE CONTROL				71-18 .03 G/KG				71-18 2.5 G/KG				71-18 5.0 G/KG				TEM .2 MG/KG			
	N WDI	N MTD	DEATH INDEX	CHISQ	N WDI	N MTD	DEATH INDEX	CHISQ	N WDI	N MTD	DEATH INDEX	CHISQ	N WDI	N MTD	DEATH INDEX	CHISQ	N WDI	N MTD	DEATH INDEX	CHISQ
SINGLE TREATMENT																				
1	14	20	.70	0.00	7	20	.35	3.61	7	20	.35	3.61	7	20	.35	3.61	16	20	.80	.13
2	8	20	.40	0.00	8	20	.40	.10	6	20	.30	.11	5	20	.25	.46	19	20	.95	11.40
3	11	20	.55	0.00	8	20	.40	.40	7	20	.35	.91	9	20	.45	.10	20	20	1.00	9.18
4	10	20	.50	0.00	12	20	.60	.10	16	20	.80	2.75	12	20	.60	.10	18	20	.90	5.83
5	11	20	.55	0.00	11	20	.55	.10	9	20	.45	.10	7	20	.35	.91	18	20	.90	4.51
6	11	20	.55	0.00	15	20	.75	.99	9	20	.45	.10	7	20	.35	.91	17	20	.85	2.98
7	11	20	.55	0.00	8	20	.40	.40	10	20	.50	0.00	13	20	.65	.10	11	20	.55	.10
8	7	20	.35	0.00	6	20	.30	0.00	10	20	.50	.41	8	20	.40	0.00	9	20	.45	.10
MULTIPLE TREATMENT																				
1	14	20	.70	0.00	6	20	.30	4.90	5	20	.25	6.42	5	20	.25	6.42				
2	8	20	.40	0.00	6	20	.30	.11	6	20	.30	.11	12	20	.60	.90				
3	11	20	.55	0.00	11	20	.55	.10	8	20	.40	.40	7	20	.35	.91				
4	10	20	.50	0.00	9	20	.45	0.00	8	20	.40	.10	8	20	.40	.10				
5	11	20	.55	0.00	6	20	.30	1.64	9	20	.45	.10	12	20	.60	0.00				
6	11	20	.55	0.00	9	20	.45	.10	13	20	.65	.10	12	20	.60	0.00				
7	11	20	.55	0.00	4	20	.20	3.84	8	20	.40	.40	8	20	.40	.40				

ARBITRARY TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE DEATH INDEX
(1 DEGREE OF FREEDOM) BASED ON THE DOSE LEVELS

WEEK	.03 G/KG		2.5 G/KG		5.0 G/KG		CHISO (C-1)	CHISO (1)	ARMTG CHISO
	N WDI	N MTD	N WDI	N MTD	N WDI	N MTD			
SINGLE TREATMENT									
1	7	20	7	20	7	20	0.00	0.00	0.00
2	8	20	6	20	5	20	1.03	1.04	.04
3	8	20	7	20	9	20	.42	.11	.31
4	12	20	16	20	12	20	2.40	.00	2.40
5	11	20	9	20	7	20	1.62	1.62	.00
6	15	20	9	20	7	20	6.94	6.39	.55
7	8	20	10	20	13	20	2.54	2.50	.03
8	6	20	10	20	8	20	1.67	.41	1.26
MULTIPLE TREATMENT									
1	6	20	5	20	5	20	.17	.13	.04
2	6	20	6	20	12	20	5.00	3.77	1.23
3	11	20	8	20	7	20	1.76	1.63	.14
4	9	20	8	20	8	20	.14	.10	.03
5	6	20	9	20	12	20	3.64	3.64	.00
6	9	20	13	20	12	20	1.76	.91	.85
7	4	20	8	20	8	20	2.40	1.79	.61

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE DEATH INDEX

(1 DEGREE OF FREEDOM)

BASED ON THE LOGARITHMS OF THE DOSE LEVELS

WEEK	.03 G/KG		2.5 G/KG		5.0 G/KG		CHISQ (C=1)	CHISQ (1)	ARMTG CHISQ
	N WDI	N- MTD	N WDI	N MTD	N WDI	N MTD			
SINGLE TREATMENT									
1	7	20	7	20	7	20	0.00	.00	-.00
2	8	20	6	20	5	20	1.08	1.03	.05
3	8	20	7	20	9	20	.42	.01	.41
4	12	20	16	20	12	20	2.40	.36	2.04
5	11	20	9	20	7	20	1.62	1.37	.24
6	15	20	9	20	7	20	6.94	6.85	.10
7	8	20	10	20	13	20	2.54	1.92	.61
8	6	20	10	20	8	20	1.67	1.06	.61
MULTIPLE TREATMENT									
1	6	20	5	20	5	20	.17	.17	.00
2	6	20	6	20	12	20	5.00	1.83	3.17
3	11	20	8	20	7	20	1.76	1.74	.02
4	9	20	8	20	8	20	.14	.14	.00
5	6	20	9	20	12	20	3.64	3.09	.55
6	9	20	13	20	12	20	1.76	1.54	.23
7	4	20	8	20	8	20	2.40	2.36	.04

ARMITAGE TEST FOR A LINEAR TREND IN PROPORTIONS FOR THE FERTILITY INDEX
(2 DEGREES OF FREEDOM) BASED ON THE DOSE LEVELS AND INCLUDING THE CONTROL GROUP

WEEK	CONTROL		.03 G/KG		2.5 G/KG		5.0 G/KG		CHISO (C-1)	CHISG (1)	ARMTG CHISO
	N WDI	N MTD	N WDI	N MTD	N WDI	N MTD	N WDI	N MTD			
SINGLE TREATMENT											
1	14	20	7	20	7	20	7	20	7.47	1.27	6.20
2	8	20	8	20	6	20	5	20	1.51	1.32	.19
3	11	20	8	20	7	20	9	20	1.78	.01	1.77
4	10	20	12	20	16	20	12	20	4.05	.04	4.01
5	11	20	11	20	9	20	7	20	2.21	2.03	.18
6	11	20	15	20	9	20	7	20	7.02	4.36	2.65
7	11	20	8	20	10	20	13	20	2.61	1.69	.92
8	7	20	6	20	10	20	8	20	1.84	.35	1.50
MULTIPLE TREATMENT											
1	14	20	6	20	5	20	5	20	12.16	2.72	9.44
2	8	20	6	20	6	20	12	20	5.00	3.56	1.44
3	11	20	11	20	8	20	7	20	2.56	1.91	.65
4	10	20	9	20	8	20	8	20	.56	.27	.29
5	11	20	6	20	9	20	12	20	4.21	1.68	2.53
6	11	20	9	20	13	20	12	20	1.78	.39	1.38
7	11	20	4	20	8	20	8	20	5.21	.03	5.19

PROBIT ANALYSIS OF THE PROPORTION OF FEMALES WITH 1 OR MORE DEAD IMPLANTS
 PROBIT = A + B (LOG DOSE)

WEEK	B	A	CHISQ	DF
SINGLE TREATMENT				
1	.000	4.615	.00	1
2	-.171	4.492	.05	1
3	.013	4.749	.41	1
4	.100	5.447	2.11	1
5	-.194	4.845	.25	1
6	-.455	4.991	.09	1
7	.230	5.075	.63	1
8	.175	4.767	.60	1
MULTIPLE TREATMENT				
1	-.071	4.365	.00	1
2	.231	4.772	3.04	1
3	-.218	4.798	.03	1
4	-.061	4.781	.00	1
5	.300	4.909	.53	1
6	.204	5.199	.23	1
7	.279	4.591	.04	1

T-TEST OF THE (TRANSFORMED) NUMBER OF DEAD IMPLANTS.
(DEAD IMPLANTS TAKEN AS A SURSET OF THE SET OF IMPLANTS)

WEEK	CONTROL				71-18 .03 G/KG				71-18 .2.5 G/KG				71-18 5.0 G/KG				TBM .2 MG/KG							
	N FEM	MEAN	STD DEV	T	N FEM	MEAN	STD DEV	DF	N FEM	MEAN	STD DEV	DF	N FEM	MEAN	STD DEV	DF	N FEM	MEAN	STD DEV	DF	T			
SINGLE TREATMENT																								
1	20	.65	.31		20	.73	.53	38	.556	20	.58	.45	38	.593	20	.71	.55	38	.426	20	1.29	.50	38	4.834
2	20	.52	.27		20	.54	.36	38	.203	20	.52	.37	38	.084	20	.54	.48	38	.132	20	2.35	.48	38	14.795
3	20	.65	.39		20	.60	.38	38	.400	20	.74	.52	38	.599	20	.62	.44	38	.224	20	2.43	.47	38	12.984
4	20	.59	.33		20	.62	.29	38	.321	20	.81	.36	38	1.548	20	.88	.53	38	2.010	20	2.44	.34	38	17.401
5	20	.62	.39		20	.66	.38	38	.384	20	.60	.34	38	.184	20	.55	.44	38	.490	20	1.31	.53	38	6.710
6	20	.66	.43		20	.87	.44	38	1.561	20	.60	.41	38	.451	20	.51	.39	38	1.122	20	.87	.37	38	1.635
7	20	.64	.37		20	.59	.41	38	.410	20	.66	.45	38	.159	20	.72	.43	38	.597	20	.67	.53	38	.174
8	20	.48	.29		20	.57	.46	38	.753	20	.75	.52	38	2.032	20	.71	.50	38	1.828	20	.55	.36	38	1.024
MULTIPLE TREATMENT																								
1	20	.65	.31		20	.55	.40	38	.955	20	.49	.35	38	1.546	20	1.00	.58	38	2.378					
2	20	.52	.27		20	.56	.42	38	.294	20	.57	.42	38	.415	20	.68	.35	38	1.559					
3	20	.65	.39		20	.66	.39	38	.072	20	.48	.25	38	1.588	20	.69	.62	38	.263					
4	20	.59	.33		20	.58	.47	38	.101	20	.73	.76	38	.748	20	.75	.51	38	1.146					
5	20	.62	.39		20	.53	.40	38	.701	20	.62	.41	38	.018	20	.58	.26	38	.321					
6	20	.70	.48		20	.66	.57	38	.252	20	.61	.26	38	.728	20	.71	.35	38	.070					
7	20	.64	.37		20	.65	.52	38	.039	20	.68	.47	38	.263	20	.70	.51	38	.392					

CONTROL GROUP ANOVA FOR THE NUMBER OF PREGNANT FEMALES

WEEK	BETWEEN MALES			WITHIN MALES			TOTAL		F ₁
	SUMSQ	DF	MEANSQ	SUMSQ	DF	MEANSQ	SUMSQ	DF	
SINGLE TREATMENT									
1	.450	9	.050	.500	10	.050	.950	19	1.000
2	0.000	9	0.000	0.000	10	0.000	0.000	19	I
3	0.000	9	0.000	0.000	10	0.000	0.000	19	I
4	0.000	9	0.000	0.000	10	0.000	0.000	19	I
5	0.000	9	0.000	0.000	10	0.000	0.000	19	I
6	0.000	9	0.000	0.000	10	0.000	0.000	19	I
7	0.000	9	0.000	0.000	10	0.000	0.000	19	I
8	0.000	9	0.000	0.000	10	0.000	0.000	19	I
MULTIPLE TREATMENT									
1	.450	9	.050	.500	10	.050	.950	19	1.000
2	0.000	9	0.000	0.000	10	0.000	0.000	19	I
3	0.000	9	0.000	0.000	10	0.000	0.000	19	I
4	0.000	9	0.000	0.000	10	0.000	0.000	19	I
5	0.000	9	0.000	0.000	10	0.000	0.000	19	I
6	0.000	9	0.000	0.000	10	0.000	0.000	19	I
7	0.000	9	0.000	0.000	10	0.000	0.000	19	I

CONTROL GROUP ANOVA FOR THE NUMBER OF IMPLANTATIONS PER PREGNANT FEMALE

WEEK	BETWEEN MALES			WITHIN MALES			TOTAL		F
	SUMSQ	DF	MEANSQ	SUMSQ	DF	MEANSQ	SUMSQ	DF	
SINGLE TREATMENT									
1	42.147	9	4.683	16.500	9	1.833	58.647	18	2.554
2	154.000	9	17.111	136.000	10	13.600	290.000	19	1.258
3	58.450	9	6.494	68.500	10	6.850	126.950	19	.948
4	43.000	9	4.778	122.000	10	12.200	165.000	19	.392
5	65.200	9	7.244	63.000	10	6.300	128.200	19	1.150
6	41.200	9	4.578	102.000	10	10.200	143.200	19	.449
7	45.450	9	5.050	107.500	10	10.750	152.950	19	.470
8	26.200	9	2.911	67.000	10	6.700	93.200	19	.434
MULTIPLE TREATMENT									
1	42.147	9	4.683	16.500	9	1.833	58.647	18	2.554
2	154.000	9	17.111	136.000	10	13.600	290.000	19	1.258
3	58.450	9	6.494	68.500	10	6.850	126.950	19	.948
4	43.000	9	4.778	122.000	10	12.200	165.000	19	.392
5	65.200	9	7.244	63.000	10	6.300	128.200	19	1.150
6	41.200	9	4.578	102.000	10	10.200	143.200	19	.449
7	45.450	9	5.050	107.500	10	10.750	152.950	19	.470

CONTROL GROUP ANOVA FOR THE PRE-IMPLANTATION LOSS PER PREGNANT FEMALE

WEEK	BETWEEN MALES			WITHIN MALES			TOTAL		F
	SUMSQ	DF	MEANSQ	SUMSQ	DF	MEANSQ	SUMSQ	DF	
SINGLE TREATMENT									
1	7.027	9	.781	11.500	9	1.278	18.527	18	.611
2	72.200	9	8.022	130.000	10	13.000	202.200	19	.617
3	51.250	9	5.694	64.500	10	6.450	115.750	19	.883
4	36.000	9	4.000	63.000	10	6.300	99.000	19	.635
5	45.000	9	5.000	76.000	10	7.600	121.000	19	.658
6	47.450	9	5.272	69.500	10	6.950	116.950	19	.759
7	37.000	9	4.111	49.000	10	4.900	86.000	19	.839
8	23.800	9	2.644	32.000	10	3.200	55.800	19	.826
MULTIPLE TREATMENT									
1	7.027	9	.781	11.500	9	1.278	18.527	18	.611
2	72.200	9	8.022	130.000	10	13.000	202.200	19	.617
3	51.250	9	5.694	64.500	10	6.450	115.750	19	.883
4	36.000	9	4.000	63.000	10	6.300	99.000	19	.635
5	45.000	9	5.000	76.000	10	7.600	121.000	19	.658
6	47.450	9	5.272	69.500	10	6.950	116.950	19	.759
7	37.000	9	4.111	49.000	10	4.900	86.000	19	.839

CONTROL GROUP ANOVA FOR THE NUMBER OF DEAD IMPLANTS PER FEMALE

WEEK	BETWEEN MALES			WITHIN MALES			TOTAL		F
	SUMSQ	DF	MEANSQ	SUMSQ	DF	MEANSQ	SUMSQ	DF	
	SINGLE TREATMENT								
1	7.800	9	.867	8.000	10	.800	15.800	19	1.083
2	5.450	9	.606	7.500	10	.750	12.950	19	.807
3	13.800	9	1.533	6.000	10	.600	19.800	19	2.556
4	11.450	9	1.272	21.500	10	2.150	32.950	19	.592
5	5.250	9	.583	6.500	10	.650	11.750	19	.897
6	21.800	9	2.422	8.000	10	.800	29.800	19	3.028
7	20.200	9	2.244	21.000	10	2.100	41.200	19	1.069
8	10.450	9	1.161	8.500	10	.850	18.950	19	1.366
	MULTIPLE TREATMENT								
1	7.800	9	.867	8.000	10	.800	15.800	19	1.083
2	5.450	9	.606	7.500	10	.750	12.950	19	.807
3	13.800	9	1.533	6.000	10	.600	19.800	19	2.556
4	11.450	9	1.272	21.500	10	2.150	32.950	19	.592
5	5.250	9	.583	6.500	10	.650	11.750	19	.897
6	48.800	9	5.422	26.000	10	2.600	74.800	19	2.085
7	20.200	9	2.244	21.000	10	2.100	41.200	19	1.069

CONTROL GROUP ANOVA FOR THE RATIO OF DEAD IMPLANTS TO TOTAL IMPLANTS PER FEMALE

WEEK	BETWEEN MALES			WITHIN MALES			TOTAL		F
	SUMSQ	DF	MEANSQ	SUMSQ	DF	MEANSQ	SUMSQ	DF	
SINGLE TREATMENT									
1	.041	9	.005	.044	10	.004	.085	19	1.048
2	.041	9	.005	.054	10	.005	.095	19	.836
3	.291	9	.032	.072	10	.007	.362	19	4.512
4	.078	9	.009	.132	10	.013	.210	19	.656
5	.175	9	.019	.268	10	.027	.443	19	.726
6	.318	9	.035	.204	10	.020	.522	19	1.731
7	.200	9	.022	.134	10	.013	.334	19	1.651
8	.089	9	.010	.081	10	.008	.170	19	1.226
MULTIPLE TREATMENT									
1	.041	9	.005	.044	10	.004	.085	19	1.048
2	.041	9	.005	.054	10	.005	.095	19	.836
3	.291	9	.032	.072	10	.007	.362	19	4.512
4	.078	9	.009	.132	10	.013	.210	19	.656
5	.175	9	.019	.268	10	.027	.443	19	.726
6	.617	9	.069	.071	10	.007	.688	19	9.713
7	.200	9	.022	.134	10	.013	.334	19	1.651

T-TEST OF THE NUMBER OF CORPORA LUTEA IN PREGNANT FEMALES.

WEEK	CONTROL				71-18 .03 G/KG				71-18 2.5 G/KG				71-18 5.0 G/KG				TEM .2 MG/KG						
	N	STD	N	STD	N	STD	N	STD	N	STD	N	STD	N	STD	N	STD	N	STD					
	PRG	MEAN	DEV	PRG	MEAN	DEV	DF	T	PRG	MEAN	DEV	DF	T	PRG	MEAN	DEV	DF	T	PRG	MEAN	DEV	DF	T
SINGLE TREATMENT																							
1	19	13.26	2.13	16	14.25	2.44	33	1.279	19	13.63	1.57	36	.607	17	14.12	1.75	34	1.302	19	13.26	1.69	36	0.000
2	20	12.70	3.28	20	12.25	1.37	38	.566	19	12.68	1.38	37	.019	20	13.15	2.23	38	.508	19	11.58	1.92	37	1.293
3	20	12.20	2.14	19	12.42	1.46	37	.374	17	13.00	3.05	35	.932	20	12.20	.95	38	0.000	20	12.35	1.31	38	.287
4	20	13.00	1.49	20	12.00	1.34	38	2.236	20	12.90	3.16	38	.127	18	12.50	1.69	36	.971	18	12.61	2.87	36	.532
5	20	12.20	1.40	19	12.74	1.52	37	1.148	20	12.60	1.54	38	.861	19	13.42	2.17	37	2.100	19	12.32	1.67	37	.235
6	20	13.25	1.41	19	13.37	2.17	37	.203	20	12.95	1.50	38	.651	20	12.80	2.21	38	.767	20	12.65	1.66	38	1.231
7	20	12.95	1.28	20	12.80	1.70	38	.315	20	11.80	1.51	38	2.603	20	12.60	1.70	38	.737	20	12.50	1.96	38	.860
8	20	12.10	1.33	19	13.53	1.47	37	3.180	18	13.89	1.68	36	3.658	19	13.84	1.68	37	3.602	20	12.90	1.33	38	1.897
MULTIPLE TREATMENT																							
1	19	13.26	2.13	18	11.83	1.54	35	2.327	19	12.63	1.74	36	1.001	11	13.55	1.63	28	.379					
2	20	12.70	3.28	18	13.56	1.42	36	1.023	19	12.84	1.71	37	.168	19	13.26	3.16	37	.546					
3	20	12.20	2.14	18	13.50	1.69	36	2.061	20	12.20	1.36	38	0.000	18	12.39	1.50	36	.311					
4	20	13.00	1.49	20	12.70	1.98	38	.543	20	11.85	1.57	38	2.382	17	12.76	1.48	35	.481					
5	20	12.20	1.40	19	14.05	2.32	37	3.037	20	13.75	2.00	38	2.843	20	13.40	1.90	38	2.272					
6	20	13.25	1.41	20	13.70	2.83	38	.636	20	12.60	1.19	38	1.577	20	12.15	1.42	38	2.455					
7	20	12.95	1.28	16	12.44	1.41	34	1.142	17	12.12	1.11	35	2.096	18	12.67	1.75	36	.575					